



CITY OF LODI

COUNCIL. COMMUNICATION

AGENDA TITLE:- Plans and Specifications and Advertisement for Bids for Well 11R
Enclosure, 824 East Turner Road

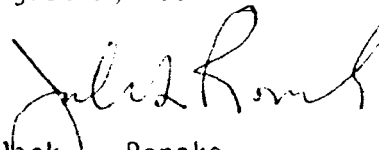
MEETING DATE: July 15, 1992

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council approve the plans and specifications for the above project and authorize advertising for bids.

BACKGROUND INFORMATION: This project consists of furnishing and installing an 8-foot high masonry block wall site enclosure, doors, gates, chain link fencing, concrete curb, gutter and sidewalk, driveway, site light and site grading for the new municipal water well located at 824 East Turner Road.

FUNDING: Originally Budgeted: 1990/1991
Budgeted Fund: Water Capital Outlay
Current Appropriation: \$126,000
Total Project Estimate: \$ 93,000
Bid Opening Date: August 5, 1992


Jack L. Ronsko
Public Works Director

Prepared by Mark J. Lindseth, Associate Civil Engineer

JLR/MJL/lm

cc: Purchasing Officer

APPROVED. _____


THOMAS A. PETERSON
City Manager

CC 1

CITY OF LODI
PUBLIC WORKS DEPARTMENT

PLANS AND SPECIFICATIONS

FOR

WELL #11-R ENCLOSURE

824 E. Turner Road
Lodi, Ca

July 1992

SET NO. _____

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SPECIFICATIONS

DIVISION ONE - GENERAL REQUIREMENTS

01100	Additional Items of Work
01710	Cleaning

DIVISION TWO - SITE WORK

02010	Subsurface Conditions
02100	Demolition, Clearing and Grubbing
02210	Excavating, Trenching, Filling and Grading
02700	Chain Link Fencing

DIVISION THREE - CONCRETE

03100	Concrete
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DIVISION FOUR - MASONRY

04200	Concrete Unit Masonry
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DIVISION FIVE - METALS

05100 Structural Steel
05500 Miscellaneous Metal

DIVISIONS **SIX** - CARPENTRY

06010 Lumber

DIVISION SEVEN - THERMAL & MOISTURE PROTECTION

No Work Under This Division

DIVISION EIGHT - DOORS AND WINDOWS

08100 Metal Doors **and** Frames
08700 Finish Hardware

DIVISION NINE - FINISHES

09900 Painting

DIVISION TEN - FIFTEEN

No Work Under These Divisions

DIVISION SIXTEEN - ELECTRICAL

16400 Electrical

WELL #I I-R ENCLOSURE
City of Lodi, California

SECTION 1
NOTICE INVITING BIDS

CITY OF LODI, CALIFORNIA

The Purchasing Officer will receive sealed bids in his office. City Hall. 221 West Pine Street. Lodi, California 95240 (P. O. Box 3006, Lodi, CA 95241-1910) until 11:00 am, Wednesday, August 5, 1992. At that time, in the Public Works Conference Room. First Floor, City Hall, 221 West Pine Street. Lodi, California. bids will be publicly opened and read. Bidders or their authorized representative are invited to be present.

The work consists of furnishing & installing concrete footings, curb, gutter & sidewalk, concrete masonry unit walls, steel door & gates and other incidental and related work all as shown on the plans and specifications for "Well #11-R Enclosure", 824 E. Turner Road, Lodi, California.

The Contractor agrees to commence work within 15 calendar days after both parties have signed the contract and to complete the work within 60 working days. Upon signing the contract, Contractor agrees that length of time of the contract is reasonable.

In accordance with the provisions of Section 1770 of the Labor Code, the Director of Department of Industrial Relations of the State of California has determined the general prevailing rates of wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in Section 1773.5, apprenticeship or other training programs authorized by Section 3093 and similar purposes applicable to the work to be done. Said wages are available through the Public Works Department, City of Lodi, City Hall, Lodi, California, 95240. The Contractor and any subcontractor shall pay each employee engaged in the trade or occupation not less than the hourly wage rate. As the wage determination for each craft reflects an expiration date, it shall be the responsibility of the prime contractor and each subcontractor to insure that the prevailing wage rates of concern are current and paid to the employee.

The Contractor shall make travel and subsistence payments to each worker needed to execute the work as such travel and subsistence payments are defined in the applicable collective bargaining agreements in accordance with Section 1773.8 of the Labor Code.

If a craft or classification used on the project is not shown on the wage determination, the Contractor may be required to pay the wage rate of that craft or classification most closely related to it as shown in the general determinations.

WELL #11-R ENCLOSURE
City of Lodi, California

SECTION 1
NOTICE INVITING BIDS

The City of Lodi hereby notifies all Bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises **will** be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex or national origin in consideration for an award.

For any monies earned by the Contractor and withheld by the City of Lodi to ensure the performance of the contract, the Contractor may, at Contractor's request and expense, substitute securities equivalent to the amount withheld in the form and manner and subject to the conditions provided in Section 22300 of the Public Contract Code of the State of California.

The Contractor shall submit certified copies of payroll records.

The contract documents are available at the office of the City Engineer, Public **Works** Department, CITY HALL 221 W Pine Street, P O Box **3006**, Lodi, California 95240-1910; **(209)** 333-6706.

No bid will be considered unless it is submitted on a proposal form furnished by the City of Lodi.

The prime contractor on this project shall possess a valid State of California Class **A** contractor's license.

The City Council reserves the right to reject any or all **bids** and to waive any informality in the completion of such forms, and to award to the lowest responsible bidder.

By Order of the City Council

ALICE M. REIMCHE
City Clerk

2.100 BID OPENING

The Purchasing Officer will receive sealed bids in his office, City Hall, 221 West Pine Street, Lodi, California 95240 (P O Box 3006, Lodi, CA 95241-1910) until the time for opening bids as noted in "Notice Inviting Bids". At that time, in the Public Works Conference Room, First Floor, City Hall, 221 West Pine Street, Lodi, California, bids will be publicly opened and read. Bidders or their authorized representative are invited to be present.

The proposal shall be submitted as directed in the "Notice Inviting Bids" under sealed cover, plainly marked as a proposal and identifying the project to which the proposal relates and the date of the bid opening therefor. Proposals which are not properly marked may be disregarded. Only proposals actually received by the City by the time set for the bid opening will be accepted.

2.200 EXAMINATION OF CONTRACT DOCUMENTS AND SITE WORK

The bidder is required to examine carefully the site, Information to Bidders, Bid Proposal, Contract, General Provisions, specifications and the plans for the work contemplated, and it will be assumed that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality and quantities of work to be performed and materials to be furnished and as to the requirements of the General Provisions and the Contract. It is mutually agreed that submission of a bid proposal shall be considered prima facie evidence that the bidder has made such examination.

If omissions, discrepancies or apparent errors are found in the plans and specifications prior to the date of bid opening, the bidder shall submit a written request for a clarification, which will be given in the form of an addenda to all bidders if time permits.

2.300 REGISTRATION OF CONTRACTORS

Before submitting bids, contractors shall be licensed in California in accordance with the provisions of Chapter 9 of Division III of the Business and Professions Code.

2.400 BIDDING DOCUMENTS

- A. Proposal Form - All proposals must be made on the forms provided with this set of specifications. Bids not presented in this form shall be disregarded. All proposals must be signed by the Bidder. If the bidder is a corporation, the corporation's seal must be used.

Each proposal shall include all addenda or clarifications issued during the bidding period acknowledged by the bidder's signature thereon. Failure to so include or acknowledge an addendum or clarification will result in the proposal being rejected as not responsive.

- B. List of Proposed Subcontractors - Any subcontractor doing work in excess of 1/2 of 1 percent of the total contract price shall be designated on the form provided in accordance with Sections 4100 et seq. of the Government Code.
- C. Bidder's Guarantee - All bids shall be presented under sealed cover and shall be accompanied by cash, cashier's check, certified check, or bidder's bond made payable to the City of Lodi for an amount equal to at least 10% of the amount of said bid and no bid shall be considered unless such cash, cashier's check, certified check, or bidder's bond is enclosed.

All bidder's guarantees will be returned to the respective bidders after the contract has been awarded except for those bid guarantees of bidders who may be given further consideration if the low bidder does not elect to execute the contract. After the award, if the contractor awarded the bid does not execute the contract, the bidder's guarantee will be forfeited. All bidder guarantees of unsuccessful bidders will be returned upon receiving the executed contract.

2.500 REJECTION OF PROPOSALS CONTAINING ALTERATIONS, ERASURES OR IRREGULARITIES

Proposals may be rejected if they show any alterations of form, additions not called for, conditional or alternative bids, incomplete bids, erasures or irregularities of any kind.

The right is reserved to reject any and all proposals.

2.600 PREVAILING WAGE RATES/LABOR CODE REQUIREMENTS

A. Prevailing Wage Rates

Bidders are notified that the contractor to whom the contract is awarded, and any subcontractor under them, must pay the general prevailing wage rates as ascertained from time to time by resolution of the City Council. In accordance with the provisions of Section 1773 of the Labor Code, the Director of the Department of Industrial Relations of the State of California has determined the general prevailing rates of wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence **pay** as provided for in Section 1773.8, apprenticeship or other training programs authorized by Section 3039, and similar purposes applicable to the work to be done. Said rates are available through the Public Works Department, City Hall, **221 W Pine Street, P O Box 3006, Lodi, Ca 95240-1910 (209) 333-6706.**

The Contractor performing the work shall be responsible for obtaining a copy of the State wage rate determination. The contractor shall be responsible for posting said wage rate at a prominent location at the work site and shall maintain same in a good, readable condition for the duration of the work.

Should the contractor choose to work on a Saturday, Sunday or on a holiday recognized by the Labor Unions, the contractor shall reimburse the City of Lodi the actual cost of engineering, inspection, superintendence, and/or other overhead expenses which are directly chargeable to the contract. Should such work be undertaken at the request of the City, reimbursement will not be required.

B. Payroll Records

The prime contractor to whom the contract is awarded shall insure that they and each subcontractor will, in accordance with Section 1776 of the Labor Code, maintain certified payroll records. It shall be the prime's responsibility to obtain copies of the current prevailing wage rate determination for all subcontractors. The contractor shall submit copies of all weekly payrolls to the Engineer.

C. Apprenticeship Standards

The prime contractor shall comply with the provisions established in Section 1777.5 of the Labor Code concerning the **1)** certified approval by local joint apprenticeship

committees for the employment and training of apprentices. and 2) contribution of funds to administrate and conduct apprenticeship programs.

D. Labor Code Section 1776

- 1) Each contractor and subcontractor shall keep an accurate payroll record. showing the name, address, social security number, ~~work~~ classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice. worker, or other employer employed by him or her in connection with the public work.
- 2) The payroll records enumerated under subdivision (1) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis:
 - a) A certified copy of an employee's payroll record shali be made available for inspection or furnished to the employee or his or her authorized representative on request.
 - b) A certified copy of all payroll records enumerated in subdivision (1) shall be made available for inspection or furnished upon request to the City, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial relations.
 - c) A certified copy of all payroll records enumerated in subdivision (1) shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the City, the Division of Apprenticeship Standards, or the Division ~~of~~ Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (1), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public shall no; be given access to the records at the principal office of the contractor.
- 3) Each contractor shall file a certified copy of the records enumerated in subdivision (1) with the entity that requested the records within 10 days after receipt of a written request.

- 4) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the City, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of the contractor awarded the contract or performing the contract shall not be marked or obliterated.
- 5) The contractor shall inform the City of the location of the records enumerated under subdivision (1), including the street address, city and county, and shall, within five (5) working days, provide a notice of a change of location and address.
- 6) In the event of noncompliance with the requirements of this section, the Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects the contractor must comply with this section. Should noncompliance still be evident after the 10-day period, the contractor shall, as a penalty to the State or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five (\$25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

2.700 AWARD OF CONTRACT

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose bid proposal complies with all the requirements described.

In case of tie bids, the tie will be broken by a coin toss, conducted by the City Purchasing Officer. Tie bidders will be notified and may be present.

"Lowest responsible bidder" refers to not only the attribute of trustworthiness, but also to the quality, fitness, and capacity of the low monetary bidder to satisfactorily perform the proposed work. If the Council determines to award a contract to other than the lowest monetary bidder, the City shall:

- 1) Notify the lowest monetary bidder;

- 2) Give the lowest monetary bidder an opportunity to know the reason why he/she is not considered the lowest responsible bidder:
- 3) Give the lowest monetary bidder an opportunity to ask for a pre-award hearing before the City Council.

Where alternate bids are received, the City Council reserves the right to select the bid ~~most~~ advantageous to the City. The award, if made, will be made within forty-five **(45)** days after the opening of the bids. All bids will be compared on the basis of the Engineer's Estimate of quantities of work to be done.

2.800 EXECUTION OF CONTRACT

The contract shall be signed by the successful Bidder and returned, together with the contract bonds, within ten (10) working days, after the Bidder has received notice that the contract has been awarded. No proposal shall be considered binding upon the City until the execution of the contract.

Failure to execute ~~a~~ contract and file acceptable bonds ~~as~~ provided herein within ten (10) working days, after the Bidder has received notice that the contract has been awarded shall be just cause for the annulment of the award and the forfeiture of the proposal deposit. The City may elect to adjust the start of working days as described in Section 6-04.03 to account for delays in executing the contract.

The successful bidder acknowledges, upon signing the contract, that the time of completion for the contract is reasonable.

2.900 CONTRACT BONDS

The Contractor shall furnish ~~two~~ good and sufficient bonds:

1. **A** faithful performance bond in the amount of one hundred percent (100%) of the contract price; and
2. **A** labor and materials bond in the amount of fifty percent (50%) of the contract price.

These bonds **will** be required at the time the signed contract is returned to the City.

2.1000 NOTIFICATION OF SURETY COMPANIES

The surety companies shall familiarize themselves with all the provisions and conditions of the contract. It is understood and agreed that they waive the right of special notification of any modifications or alterations, omissions or reductions, extra or additional work, extensions of time or any other act or acts by the City of Lodi or its authorized agents under the terms of the contract; and failure to so notify the surety companies of such changes shall in no way relieve the surety or sureties of their obligations under this contract.

2.1100 INSURANCE CERTIFICATE

The Contractor shall furnish a certificate of insurance to the City of Lodi in accordance with Section 5.413, "Public Liability and Property Damage Insurance", and Section 5.414, "Compensation insurance", of the General Provisions at the time the signed contract is returned to the City.

2.1200 WORKERS COMPENSATION INSURANCE

The Contractor shall carry full Worker's Compensation Insurance coverage for all persons employed in carrying out the work, including subcontractor's employees, under this contract in accordance with the "Worker's Compensation and Insurance Act", Division IV of the Labor Code of the State of California and any acts amendatory thereof.

2.1300 DRUG-FREE WORKPLACE POLICY

The City of Lodi has adopted a drug-free workplace policy. This policy is attached as Exhibit "A" and made a part of the Information to Bidders. As a pre-condition to receiving a contract which use Federal funds, the Contractor must certify that he/she will provide a drug-free workplace and comply with the City's drug-free workplace policy.

END OF INFORMATION TO BIDDERS

EXHIBIT A

CITY OF LODI

ADMINISTRATIVE POLICY MANUAL

CITY OF LODI

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SUBJECT : DRUG-FREE WORKPLACE

DATE ISSUED: November 20, 1991

SECTION : D

REFERENCE : Drug Free Workplace Act of 1988;
Americans With Disabilities Act of
1990; The Rehabilitation Act of
1973.

SECTION 1: PURPOSE

The City of Lodi has a strong commitment to providing a drug-free workplace. To this effect, the purpose of this policy is to eliminate and prevent substance abuse and its effects in the workplace. It is the intent of the City of Lodi to provide a safe, healthy work environment and to encourage employees to work together toward this end.

SECTION 2: POLICY STATEMENT

The unlawful manufacture, distribution, dispensing, possession, use, or being under the influence of alcohol and/or controlled substances during work hours, in the workplace whether on or off City property, or while operating City vehicles and equipment is prohibited.

Drug and alcohol consumption on and/or off the job can adversely affect job performance and employee/public safety. The City respects the privacy of its employees and contractors unless involvement with drugs and alcohol off the job adversely affects job performance and employee/public safety.

SECTION 3: COMPLIANCE OF FEDERAL CONTRACTORS AND GRANTEES

Federal Contractors and grantees must certify that they will provide drug-free workplaces as a pre-condition to receiving a contract or grant from any Federal agency. Failure to comply with the requirements of the Drug-Free Workplace Act may result in the following sanctions:

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A. suspension of payments under the grant;

B. termination of the grant; or

C. debarment from any grant award from any Federal agency for a period up to five (5) years.

Such penalties may be applied to contractors/grantees who have made false certifications of compliance with the Rct.

SECTION 4:

COMPLIANCE OF EMPLOYEES

All employees shall agree to abide by this condition of employment and shall notify the City of **any** criminal drug statute conviction for a violation occurring in the workplace no later than five **(5)** days after such conviction.

In those instances where City employees, who are employed under Federal contract or grant, are convicted of criminal **drug** statutes violations occurring in the workplace, the City shall **notify** the grantor agency within ten (10) days after receiving notice from such employees or otherwise receiving actual notice of such convictions.

SECTION 5:

ENFORCEMENT

The City shall take appropriate disciplinary action, up to and including termination, and/or require an employee to participate satisfactorily in a drug-abuse assistance or rehabilitation program approved for such purposes by a Federal, State or local health, law enforcement or other appropriate agency within thirty days of receiving notice that a City employee **was** convicted of a criminal drug statute violation which occurred in the workplace. Coordination of the rehabilitation aspects shall be handled through the Personnel Department.

SECTION 6:

ACCOMODATXON

The City of Lodi is committed to providing reasonable accommodation to those employees with a drug or alcohol problem in accordance with the provisions of federal and/or state law.

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The City of Lodi's voluntary **Employee Assistance Program** is available to assist employees who seek help for alcohol or drug problems. Employees are encouraged to contact the Employee Assistance Program directly for additional information.

SECTION 7:

PRESCRIPTION MEDICATION

An employee taking prescribed drugs which may interfere with safe work performance is required to provide written documentation from the prescribing physician indicating the level of interference with job performance. The employee's immediate supervisor or department head shall determine on a case-by-case basis the employee's ability to perform employment responsibilities. Failure to notify a supervisor may result in disciplinary action in accordance with City policy and procedure. An employee may be required to provide a statement from a licensed physician, indicating when the employee is able to work safely, or any limitations she/he may have while taking the prescribed medication.

D-6/TXTA.04P/POLCY.DIR

April 29, 1992

TO: THE LODI CITY COUNCIL
Lodi City Hall
221 West Pine Street
P. O. Box 3006
Lodi, Ca 95241-1910

The undersigned declares that the site has been carefully examined, Information to Bidders, Contract, General Provisions, the Plans and Specifications for the construction of various items required for the above-named project and submits this schedule of prices for the items of the bid.

If awarded the Contract, the undersigned agrees to furnish all labor, materials and equipment necessary to complete said work for this project. excepting those items supplied by the City of Lodi, in strict accordance with the Plans and Specifications, Information to Bidders, General Provisions, and Contract form adopted for the same and the requirements under them of the Engineer, and will take in full payment therefor the following unit and total prices, to-wit:

Perform the work consisting of concrete footings, paving, concrete masonry unit walls, steel door fabrication and other incidental and related work all as shown on the plans and specifications for "Well #11-R Enclosure" at 824 E. Turner Road, Lodi, California.

BID PROPOSAL

BID ITEMS					
Item No.	Description	Unit	Est'd Qty	Unit Price	Total Price
1	Site Work-Demolition; Rough & Finish Grading of Site, Misc. Conduits	ls			
2	Concrete Masonry Unit Walls/Concrete Footings, Compaction	ls			
3	Exposed Aggregate Concrete Driveway with Compaction	sf			
4	Concrete Curb, Gutter and Sidewalk with Compaction	lf			
5	6' Chain Link Fencing, Concrete Footings and Mow Strip, etc.	lf			
6	8' Chain Link Fencing and Mow Strips	lf			
7	Electrical Work	ls			

TOTAL BASE BID _____

1	Furnish and Install Concrete Masonry Unit Landscape Wall, Landscape Retaining Wall & Footing	ls			
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ADDITIONAL ITEM #1 TOTAL _____

2	Furnish and Install 5' Wide Exposed Aggregate Walkway	ls			
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ADDITIONAL ITEM #2 TOTAL _____

The undersigned agrees that if this Bid Proposal is accepted. at the time of signing of the contract, two good and sufficient bonds will be furnished: one in the amount of 100 percent of the contract price for faithful performance of all the terms and covenants and conditions of the contract; the other in the amount of **50** percent of the contract price to guarantee the payment for labor and materials used in performing the work embraced under this contract.

All bidder's guarantees will be returned to the respective bidders after the contract has been awarded, except for those bid guarantees of bidders who may be given further consideration if the low bidder does not elect to execute the contract. After the award, if the Contractor awarded the bid does not execute the contract, the bidder's guarantee will be forfeited. All bidder guarantees of unsuccessful bidders will be returned upon receiving the executed contract. Accompanying this Bid Proposal is _____
(insert the words, "Cash, "Certified Check", "Cashier's Check", or "Bidder's Bond", as the case may be) payable to the City of Lodi in the amount equal to at least **10%** of the total bid, which is to be deposited with the City of Lodi as required.

The undersigned further agrees that in case of default in executing the required contract. together with the necessary bonds, within 10 working days after receiving the contract for signature, the proceeds of the deposit accompanying the bid shall be come the property of the City of Lodi, California, and this Bid Proposal and the acceptance thereof may be considered null and void. However, if the undersigned shall execute the contract and furnish the bonds required within the time aforesaid, the deposit shall be returned forthwith. It is understood that no verbal agreement or conversation with any officer, agent or employee of the City, either before or after the execution of the Contract. shall affect or modify any of the terms or obligations of this Bid proposal.

It is understood that the City will not be responsible for any errors or omissions on the part of the undersigned in making up the bid, nor will bidders be released on account of errors.

The undersigned declares that the only person or persons interested in this proposal as principal or principals is or are the undersigned, and that no person other than the undersigned has any interest in this Bid proposal or in the contract proposed to be taken; that this proposal is made without any connection with any other person or persons making a bid or proposal for the same purpose; that the proposal is in all respects fair and in good faith and without collusion or fraud; that no City Officer, either elected or appointed, and no City Employee is, shall be or become directly or indirectly interested as principal or principals in this Bid Proposal or in the contract proposed to be made. or in the supplies, work or business to which it relates or in any portions of the profits thereof.

All representations made herein are true and are made under penalty of perjury.

WELL #11-R ENCLOSURE
City of Lodi, California

SECTION 3
BID PROPOSAL

The following information is furnished relative to each subcontractor who will perform work or labor or render services to the undersigned in and about the construction of the project in an amount in excess of one-half of one percent of the total amount of this bid, or on a street, highway or bridge project, work in excess of one-half of one percent or **\$10,000**, whichever is greater. The undersigned agrees that any portions of the work in **excess** of the specified amounts shown above and for which no subcontractor is designated herein, will be performed **by** the undersigned.

Name of Subcontractor	Address	Description of Work

Attach additional sheets if needed.

WELL #11-R ENCLOSURE
City of Lodi, California

SECTION 3
BID PROPOSAL

The Undersigned is licensed in accordance with the laws of the State of California, License No. _____, Classification _____, License Expiration Date _____

Federal Contractor/Employer I.D. NO. _____

Bidder

Dated: _____, 19 _____

Authorized Signature

Title

TYPE OF ORGANIZATION
(Individual, Partnership or Corporation)

(Affix corporate seal if Corporation)

Address

() Telephone

CITY OF LODI, CALIFORNIA

THIS **CONTRACT** made by and between the City of Lodi, State of California, herein referred to as the "City", and _____
herein referred to as the "Contractor."

W I T N E S S E T H :

That the parties hereto have mutually covenanted and agreed, and by these presents do covenant and agree with each other, as follows:

The complete Contract consists of the following documents which are incorporated herein by this reference, to-wit:

Notice Inviting Bids
Information to Bidders
General Provisions
Bid Proposal
Contract
Contract Bonds
Plans and Specifications
The January 1988 Edition Standard Specifications,
State of California, Business & Transportation Agency,
Department of Transportation

All of the above documents, sometimes hereinafter referred to as the "Contract Documents", are intended to cooperate so that any work called for in one and not mentioned in the other is to be executed the same as if mentioned in **all** said documents.

ARTICLE I: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the City and under the condition expressed in the two bonds bearing even date with these presents and hereunto annexed, the Contractor agrees with the City, at Contractor's cost and expense, to do all the work and furnish **all** the materials except such as are mentioned in the specifications to be furnished by the City, necessary to construct and complete in a good workmanlike and substantial manner and to the satisfaction of the City the proposed improvements as shown and described in the Contract Documents which are hereby made a part of the Contract.

ARTICLE II The City hereby promises and agrees with the Contractor to employ, and does hereby employ, the Contractor to provide all materials and services not supplied by the City and to do the work according to the terms and conditions for the price herein, and hereby contracts to pay the same **as** set forth in Section 5.600, "Measurement, Acceptance and Payment," of the General Provisions, in the manner and upon the conditions

above set forth; and the same parties for themselves, their heirs, executors, administrators, successors and assigns, do hereby agree to the full performance of the covenants herein contained.

ARTICLE III The Contractor agrees to conform to the provisions of Chapter 1, Part 7, Division 2 of the Labor Code. The Contractor and any Subcontractor will pay the general prevailing wage rate and other employer payments for health and welfare, pension, vacation, travel time, and subsistence pay, apprenticeship or other training programs. The responsibility for compliance with these Labor Code requirements is on the prime contractor.

ARTICLE IV And the Contractor agrees to receive and accept the following prices as full compensation for furnishing all materials and for doing all the work contemplated and embraced in this agreement; also for all loss or damage arising out of the nature of the work aforesaid or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by the City, and for all risks of every description connected with the work; also for all expenses incurred by or in consequence of the suspension or discontinuance of work and for well and faithfully completing the work, and the whole thereof, in the manner and according to the Plans and Contract Documents and the requirements of the Engineer under them, to-wit:

Perform the work consisting of concrete footings, paving, concrete masonry unit walls, steel door fabrication and other incidental and related work all as shown on the plans and specifications for "Well # 11-R Enclosure" at 824 E. Turner Road, Lodi, California.

BID PROPOSAL

DESCRIPTION	TOTAL BASE BID
The work consists of furnishing & installing concrete footings, curb, gutter & sidewalk, concrete masonry unit walls, steel door & gates and other incidental and related work.	

The Sum of _____
(\$ _____)

"ADDITIONAL ITEM OF WORK" NO. ONE

DESCRIPTION

ADDITIONAL ITEM #1 TOTAL BID

Furnish and Install Concrete Masonry Unit Landscape Wall, Landscape Retaining Wall & Footing.

The Sum of _____
(\$ _____)

"ADDITIONAL ITEM OF WORK" NO. TWO:

DESCRIPTION

ADDITIONAL ITEM #2 TOTAL BID

Furnish and Install 5' Wide Exposed Aggregate Walkway

The Sum of _____
(\$ _____)

ARTICLE V By my signature hereunder, as Contractor, I certify that I am aware of the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

ARTICLE VI It is further expressly agreed by and between the parties hereto that, should there be any conflict between the terms of this instrument and the Bid Proposal of the Contractor, then this instrument shall control and nothing herein shall be considered as an acceptance of the said terms of said proposal conflicting herewith.

ARTICLE VII The City is to establish lines and grades for the work as specified under Specifications Section 02210. All labor or materials not mentioned specifically as being done by the City will be supplied by the Contractor to accomplish the work as outlined in the specifications.

ARTICLE VIII The Contractor agrees to commence work pursuant to this contract within **15** calendar days after the Mayor has executed the contract and to diligently prosecute to completion within 60 working days.

WHEN SIGNING THIS CONTRACT, THE CONTRACTOR AGREES THAT THE TIME OF COMPLETION FOR THIS CONTRACT IS REASONABLE AND THE CONTRACTOR AGREES TO PAY THE CITY LIQUIDATED DAMAGES AS SET FORTH IN THE INSTRUCTIONS TO BIDDERS. CONTRACTOR AGREES THAT **THIS AMOUNT** MAY BE DEDUCTED FROM THE AMOUNT DUE THE CONTRACTOR UNDER THE CONTRACT.

IN **WITNESS** WHEREOF, the parties **to** these presents have hereunto set their hands the year and date written below.

CONTRACTOR

CITY OF LODI

by: _____
Mayor

By: _____

Date: _____
Attest: _____

City Clerk

(CORPORATE SEAL)

SECTION 5

GENERAL PROVISIONS.

5-100 SCOPE OF WORK

5-101 Work to be Done The work to be done consists of furnishing all labor, materials, methods and processes, implements, tools and machinery, except as otherwise specified, which are necessary and required to construct and complete the work designated in these specifications and improvement plans, and to leave the grounds in a neat condition.

5-102 Alterations By mutual consent in writing of the parties signatory to the contract, alterations or deviations, increases or decreases, and additions or omissions in the plans and specifications may be made and the same shall in no way affect or make void the contract.

The City of Lodi reserves the right to increase or decrease the Quantity of any item or portion of the work, or to omit portions of the work as may be deemed necessary or expedient by the City Engineer.

5-103 Extra Work New and unforeseen work will be classed as extra work when such work cannot be covered by any of the various items for which there is a contract bid price.

The Contractor shall do no extra work except upon a written change order from the City Engineer. For such extra work, the Contractor shall receive payment as previously agreed upon in the change order or as provided in Section 5-604, "Extra Work", of these General Provisions.

5-104 Cleaning Up The Contractor shall not allow the site of the work to become littered with trash and waste material, but shall maintain the same in a neat and orderly condition throughout the construction period. The Engineer shall have the right to determine what is or is not waste material or rubbish and the place and manner of disposal.

The Contractor shall remove and dispose of all trees designated by the City Engineer as obstructions to the proper completion of the work.

Upon completion and before making application for final acceptance of the work, the Contractor shall clean the street or road, borrow pits, and all ground occupied by Contractor in connection with the work of all rubbish, excess materials, temporary structures, and equipment; and all parts of the work shall be left in a neat and presentable condition, acceptable to the Engineer.

5-200 CONTROL OF WORK

5-201 Authority of the City Engineer The City Engineer shall decide any and all questions which may arise as to the quality or acceptability of materials furnished and work performed, and as to the manner of performance and rate of progress of the work: all questions which arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor; and all questions as to claims and compensation.

The City Engineer's decision shall be final. The City Engineer shall have executive authority to enforce and make effective such decisions and orders as the Contractor fails to carry out promptly.

5-202 Plans All authorized alterations affecting the requirements and information given on the approved plans shall be in writing. No changes shall be made of any plan or drawing after the same has been approved by the City Engineer, except by direction of the City Engineer.

The contract plans shall be supplemented by such working drawings prepared by the Contractor as are necessary to adequately control the work. These plans shall be approved by the City Engineer before any work involving these plans shall be performed. No change shall be made by the Contractor in any working drawing after it has been approved by the Engineer.

Full compensation for furnishing all working drawings shall be considered as included in the prices paid for the contract items of work to which such drawings relate and no additional compensation will be allowed therefor.

It is mutually agreed, however, that approval by the City Engineer of the Contractor's working plans does not relieve the Contractor of any responsibility for accuracy of dimensions and details, and that the contractor shall be responsible for agreement and conformity of Contractor's working plans with the approved plans and specifications.

5-203 Conformity with Contract Documents and Allowable Deviations Work and materials shall conform to the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown on the plans or indicated in the specifications.

Deviations from the approved plans, as may be required by the urgencies of construction, will be determined in all cases by the City Engineer and authorized in writing.

5-204 Coordination of Plans and Specifications The plans and specifications including all supplementary documents are essential parts of the contract and a requirement occurring in one is as binding as though occurring in all. They are intended to be cooperative, to describe, and to provide for a complete work.

Plans shall govern over Special Provisions. Special Provisions shall govern over General Provisions. General Provisions shall govern over Standard Specifications and Standard Plans.

5-205 Interpretation of Plans and Specifications Should it appear that the work to be done, or any matter relative thereto, is not sufficiently detailed or explained in the plans and specifications, the Contractor shall apply to the City Engineer for such further explanations as may be necessary, and shall conform to such explanation or interpretation as part of the

contract so far as may be consistent with the intent of the original specifications. In the event of doubt or questions relative to the true meaning of the contract documents, reference shall be made to the City Engineer, whose decision thereon shall be final.

In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct.

5-206 Order of Work When required by the Special Provisions or plans, the Contractor shall follow the sequence of operations as set forth therein.

Full compensation for conforming with such requirements will be considered as included in the prices paid for the various contract items of work, and no additional compensation will be allowed therefor.

5-207 Plans and Specifications on Job Site A completed, approved set of plans, specifications and change orders shall be kept on the job site and available at all times. Non-availability shall be deemed a cause for temporary suspension of work.

5-208 Superintendence Before starting work, the contractor shall designate in writing an authorized representative who shall have the authority to represent and act for the Contractor.

Said authorized representative shall be present at the site of the work at all times while work is actually in progress on the contract. When work is not in progress and during periods when work is suspended, arrangements acceptable to the Engineer shall be made for any emergency work which may be required.

Whenever the Contractor or Contractor's authorized representative is not present on any particular part of the work where it may be desired to give direction, orders will be given by the Engineer, which shall be received and obeyed by the superintendent or supervisor who may have charge of the particular work in reference to which the orders are given.

Any order given by the Engineer, not otherwise required by the specifications to be in writing, will, on request of the Contractor, be given or confirmed in writing.

5-209 Lines and Grades All distances and measurements are given and will be made in a horizontal plane. Grades are given from the top of stakes or nails, unless otherwise noted. Such stakes or points will be set as the Engineer determines to be necessary to establish the lines and grades required for the completion of the work specified in the plans and specifications.

Three consecutive points shown on the same rate of slope must be used in common in order to detect any variation from a straight grade; and in case any such discrepancy exists, it must be reported to the City Engineer. If such a discrepancy is not reported to the City Engineer, the Contractor shall be responsible for any error in the finished work.

The Contractor shall give at least 24 hours notice when the project of the City Engineer is required for laying out any portion of the work.

Stakes and points set by the Engineer shall be carefully preserved by the Contractor until authorized to remove them by the City Engineer. In case such stakes and points are destroyed or damaged, they will be replaced at the Engineer's earliest convenience. The Contractor will be charged for the cost of necessary replacement or restoration of stakes and points which, in the judgment of the Engineer, were carelessly or willfully destroyed or damaged by the Contractor's operations. This charge will be deducted from any moneys due or to become due the Contractor.

5-210 Inspection The Engineer shall at all times have access to the work during its construction, and shall be furnished with every reasonable facility for ascertaining that the materials and the workmanship are in accordance with the requirements and intentions of the specifications, the General Provisions, and the plans. All work done and all materials furnished shall be subject to the Engineer's inspection.

The Contractor shall provide excavations for the Engineer for the purpose of taking compaction tests in areas below existing grade where embankments or trench and structure backfill has not been tested.

Whenever the Contractor varies the period during which work is carried on each day, due notice shall be given to the City Engineer so that proper inspection may be provided.

The inspection of the work or materials shall not relieve the Contractor of any obligations to fulfill the Contract as prescribed. Work and materials not meeting such requirements shall be made good, and unsuitable work or materials may be rejected, notwithstanding that such work or materials have been previously inspected by the Engineer or that payment therefor has been included in a progress estimate.

The projects financed in whole or in parts with State funds shall be subject to inspection at all times by the designated agents of the State of California.

Portions of the work done under a San Joaquin County encroachment permit shall be subject to County inspection.

5-211 Removal of Defective and Unauthorized Work All work which is defective in its construction or deficient in any of the requirements of these specifications shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed for such correction.

All work done beyond the lines and grades shown on the plans or established by the City Engineer, or any extra work done without written authority, will be considered as unauthorized and will not be paid for.

Upon failure on the part of the Contractor to comply forthwith with any order of the City Engineer made under the provisions of this section, the City Engineer shall have authority to cause defective work to be remedied, or removed and replaced, and unauthorized work to be removed and to deduct the costs thereof from any moneys due or to become due to the Contractor.

5-212 Final Inspection Whenever the work provided and contemplated by the contract shall have been satisfactorily completed and the final cleaning up performed, and the City Engineer notified in writing, the City Engineer will make the final inspection.

5-300 CONTROL OF MATERIALS

5-301 Source of Supply and Quality of Materials

The Contractor shall furnish all materials required to complete the work, except materials that are designated in the specifications to be furnished by the City.

Only materials conforming to the requirements of the specifications shall be incorporated in the work.

The materials furnished and used shall be new, except as may be provided elsewhere in these specifications or the plans. The materials shall be manufactured, handled and used in a manner to insure completed work in accordance with the plans and specifications.

Manufacturer's warranties, guarantees, instruction sheets and parts lists, which are furnished with certain articles or materials incorporated in the work, shall be delivered to the Engineer before commencement of the work.

5-302 Samples and Tests At the option of the City Engineer, the source of supply of each of the materials shall be approved by the City Engineer before delivery is started and before such material is used in the work. Representative preliminary samples of the character and quality prescribed shall be submitted by the Contractor or producer of all materials to be used in the work for testing or examination as desired by the City Engineer.

All tests of materials furnished by the Contractor shall be made in accordance with commonly recognized standards of national organizations, and such special methods and tests as are prescribed in these specifications.

The Contractor shall furnish such samples of materials as are requested by the City Engineer, without charge. No material shall be used until it has been approved by the City Engineer. Samples will be secured and tested whenever necessary to determine the quality of material.

5-303 Defective Materials All materials not conforming to the requirements of these specifications shall be considered as defective, and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the site of the work unless otherwise permitted by the City Engineer.

No rejected materials, the defects of which have been subsequently corrected, shall be used until approved in writing by the City Engineer.

Upon failure on the part of the Contractor to comply with an order of the City Engineer made under the provisions of this section, the City Engineer shall have authority to remove and replace defective material and to deduct the cost of removal and replacement from any moneys due or to become due the Contractor.

5-304 City-furnished Materials Materials furnished by the city will be available at locations designated in the Special Provisions, or if not designated therein they will be delivered to the project. They shall be hauled to the site of the work by the Contractor at his/her expense, including any necessary loading and unloading that may be involved. The cost of handling and placing City-furnished materials shall be considered as included in the price paid for the contract items involving such City-furnished materials. City-furnished materials lost or damaged from any cause whatsoever shall be replaced by the Contractor. The Contractor will be liable to the City for the cost of replacing City-furnished materials and such costs may be deducted from any moneys due or to become due the Contractor.

5-305 Trade Names and Alternatives For convenience in designation on the plans or in the specifications, certain articles or materials to be incorporated in the work may be designated under a trade name or the name of the manufacturer and the catalogue information. The use of an alternative article or materials which are of equal quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements.

The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor, who shall furnish all information necessary as required by the Engineer. The Engineer shall be the sole judge as to the quality and suitability of alternative articles or materials and such decision shall be final.

Whenever the specifications permit the substitution of a similar or equivalent material or article, no tests or action relating to the approval of such substitute material will be made until the request for substitution is made in writing by the Contractor accompanied by complete data as to the equality of the material or article proposed. Such request shall be made in ample time to permit approval without delaying the work.

5-400 CECAL RELATIONS AND RESPONSIBILITIES

5-401 Laws to be Observed The Contractor shall keep him/herself fully informed of all existing and future State and National laws and all municipal ordinances and regulations of the City of Lod1 which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and

decrees of bodies or tribunals having any jurisdiction or authority over the same.

5-402 Labor Discrimination Attention is directed to Section 1735 of the Labor Code which reads as follows:

1735. No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in Section 1420, and every Contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter.

5-403 Permits and Licenses Except as otherwise provided, the Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

5-404 Contractor's Licensing Laws Attention is directed to the provisions of Chapter 9 of Division 3 of the Business and Professions Code concerning the licensing of contractors.

All bidders and contractors shall be licensed in accordance with the laws of the State of California and any bidder or contractor not so licensed is subject to the penalties imposed by such laws.

5-405 Patents The Contractor shall assume all responsibilities arising from the use of patented materials, equipment, devices or processes used on or incorporated in the work.

5-406 Safety Provisions The Contractor shall conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety.

5-407 Public Convenience and Safety The Contractor shall so conduct the operation as to cause the least possible obstruction and inconvenience to public traffic. Unless other existing streets are stipulated in the Special Provisions to be used as detours, all traffic shall be permitted to pass through the work.

Residents along the road or street shall be provided passage as far as practicable. Convenient access to driveways, houses and buildings along the road or street shall be maintained and temporary crossing shall be provided and maintained to good condition. Not more than one cross or intersecting street or road shall be closed at any one time without the approval of the City Engineer.

The Contractor shall furnish, erect and maintain such fences, barriers, lights, signs and flag persons as are necessary to give adequate warning to the public at all times that the road or street is under construction and of any dangerous conditions to be encountered as a result thereof, and shall also erect and maintain such warning and directional signs as may be furnished by the City.

Signs, lights, flags and other warning and safety devices shall conform to the requirements set forth in the current "Manual of Darning Signs, Lights and Devices for Use in Performance of Work upon Highways," issued by the State of California Department of Transportation. Copies of this manual are on file with the Public Works Department.

No material or equipment shall be stored where it will interfere with the free and safe passage of public traffic, and at the end of each day's work and at other times when construction operations are suspended for any reason, the Contractor shall remove all equipment and other obstructions from that portion of the roadway open for use by public traffic.

Full compensation for doing the above-mentioned work shall be included in the price paid for the various contract items of work, and no additional compensation will be allowed therefor.

5-408 Preservation of Property Due care shall be exercised to avoid injury to existing improvements or facilities, utility facilities, adjacent property, and trees, shrubs and other plants that are not to be removed.

Trees, shrubs and other plants that are not to be removed, and pole lines, fences, signs, markers and monuments, buildings and structures, and any other above ground improvements or facilities and all underground facilities shown on the plans or brought to the Contractor's attention during the contract, within or adjacent to the highway, within or adjacent to the highway, shall be protected from injury or damage; and if ordered by the Engineer, the Contractor shall provide and install suitable safeguards, approved by the Engineer, to protect such objects from injury or damage. Such objects injured or damaged by reason of the Contractor's operations shall be replaced or restored to a condition as good as when the Contractor entered upon the work, or as good as required by the Specifications accompanying the contract. The Engineer may make or cause to be made such temporary repairs as are necessary to restore to service any damaged facility. The cost of such repairs shall be borne by the Contractor and may be deducted from any moneys due or to become due to the Contractor under the contract.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in protecting or repairing property as specified in this section, shall be considered as included in the prices paid for the various contract items of work, and no additional compensation will be allowed therefor.

5-409 Responsibility for Damage The City or Lodi, the City Council, all officers and employees or agent shall not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof, or for any material or equipment used in performing the work, or for injury or damage to any person or persons, either work personnel or the public, for damage to adjoining property from any cause whatsoever during the progress of the work or any time before final acceptance.

The Contractor shall indemnify and save harmless the City of Lodi, the City Council, all officers and employees or agent from any suits, claims or actions brought by any person or persons for or on account of any injuries or damages sustained or arising in the construction of the work or in consequence thereof. The City Council may retain as much of the money due the Contractor as shall be considered necessary until disposition has been made of such suits or claims for damages as aforesaid.

5-410 Contractor's Responsibility for Work
Except as provided above, until the formal acceptance of the work by the City Council, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the work.

The contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expenses thereof, except such injuries or damages occasioned by acts of the Federal Government or the public enemy.

5-411 No Personal Liability Neither the City Council, the City Engineer, nor any other officer or authorized assistant or agent or employee shall be personally responsible for any liability arising under the contract.

5-412 Responsibility of City The City of Lodi shall not be held responsible for the care or protection of any material or parts of the work prior to final acceptance, except as expressly provided in these specifications.

5-413 Insurance Requirements for Contractor
The Contractor shall take out and maintain during the life of this contract, insurance coverage as listed below. These insurance policies shall protect the Contractor and any subcontractor performing work covered by this contract from claims for damages for personal injury, including accidental death, as well as from claims for property damages, which may arise from Contractor's operations under this contract, whether such operations be by Contractor or by any subcontractor or by anyone directly or indirectly employed by either of them, and the amount of such insurance shall be as follows:

1. COMPREHENSIVE GENERAL LIABILITY

\$1,000,000 Bodily Injury -
Ea. Occurrence/Aggregate

\$1,000,000 Property Damage -
Ea. Occurrence/Aggregate

or

\$1,000,000 Combined Single Limits

2. COMPREHENSIVE AUTOMOBILE LIABILITY

\$1,000,000 Bodily Injury - Ea. Person
\$1,000,000 Bodily Injury - Ea. Occurrence
\$1,000,000 Property Damage - Ea. Occurrence

or

\$1,000,000 Combined Single Limits

A copy of the certificate of insurance with the following endorsements shall be furnished to the City:

(a) Additional Named Insured Endorsement

Such insurance as is afforded by this policy, shall also apply to the City of Lodi, its elected and appointed Boards, Commissions, Officers, Agents and Employees as additional named insureds insofar as work performed by the insured under written contract with the City of Lodi.

(b) Primary Insurance Endorsement

Such insurance as is afforded by the endorsement for the Additional Insureds shall apply as primary insurance. Any other insurance maintained by the City of Lodi or its officers and employees shall be excess only and not contributing with the insurance afforded by this endorsement.

(c) Severability of Interest Clause

The term "insured" is used severally and not collectively, but the inclusion herein of more than one insured shall not operate to increase the limit of the company's liability.

(d) Notice of cancellation or Change in Coverage Endorsement

This policy may not be cancelled nor the coverage reduced by the company without 30 days' prior written notice of such cancellation or reduction in coverage to the City Attorney, City of Lodi, Call Box 3006, Lodi, CA 95241.

5-414 Compensation Insurance The Contractor shall take out and maintain during the life of this contract, Worker's Compensation Insurance for all of Contractor's employees employed at the site of the project and, if any work is sublet, Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under the Worker's Compensation Statute, the Contractor shall provide and shall cause each subcontractor to provide insurance for the protection of said employees. This policy may not be cancelled nor the coverage reduced by the company without 30 days' prior written notice of such cancellation or reduction in coverage to the City Attorney, City of Lodi, Call Box 3006, Lodi, CA 95241.

5-415 Guarantee and Warranty In addition to guarantees required in other provisions of the contract, Contractor shall, and hereby does, guarantee and warrant all work for a period of one year after date of acceptance or work by the City and shall repair or replace any or all such work, together with any other work which may be displaced in so doing, that may prove defective in workmanship and/or materials within one-year period from date of acceptance without expense whatsoever to the City, ordinary wear and tear,

unusual abuse or neglect excepted. The Engineer will give notice of observed defects with reasonable promptness. The Contractor shall notify the Engineer upon completion of repairs.

In the event of failure of the Contractor to comply with the above-mentioned conditions within one week after being notified in writing, the City is hereby authorized to proceed to have defects repaired and made good at expense of the Contractor who hereby agrees to pay costs, penalties and charges therefor immediately on demand.

If, in the opinion of the Engineer, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the City or to prevent interruption of operations of the City, the City will attempt to give the notice required. If the Contractor cannot be contacted or does not comply with the Engineer's request for correction within a reasonable time as determined by the Engineer, the City may, notwithstanding the provisions of this section, proceed to make such correction or provide such attention and the costs of such correction or attention shall be charged against the Contractor. Such action by the City will not relieve the Contractor of the guarantees provided in this section or elsewhere in this contract.

This section does not in any way limit the guarantee on any items for which longer guarantee is specified nor on any items for which a manufacturer gives a guarantee for a longer period, nor does it limit other remedies of the City in respect to latent defects, fraud or implied warranties.

5-416 Cooperation Should construction be underway by other agencies or by other contractors within or adjacent to the limits for the work specified, or should work of any other nature be underway by other forces within or adjacent to said limits, the Contractor shall schedule and coordinate the work with the other contractors and agencies so there is the least amount of conflict during all phases of construction. The Contractor is also responsible for making all necessary agreements with other contractors as required during construction.

5-500 PROSECUTION AND PROGRESS

5-501 Subcontracting The Contractor shall give personal attention to the fulfillment of the contract and shall keep the work under control.

Subcontractor will not be recognized as such and all persons engaged in the work of construction will be considered as employees of the Contractor, and their work shall be subject to the provisions of the contract and specifications.

Where a portion of the work subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the City Engineer, the subcontractor shall be removed immediately on the requisition of the City Engineer and shall not again be employed on the work.

5-502 Assignment The performance of the contract may not be assigned, except upon written consent of the City. Consent will not be given to any proposed assignment which would relieve the original Contractor of Contractor's surety of their responsibilities under the contract, nor will the City consent to any assignment of a part of the work under the contract.

5-503 (deleted)

5-504 (deleted)

5-505 Character of Work Personnel If any subcontractor or person employed by the Contractor falls or refuses to carry out the directions of the City Engineer or appears to the City Engineer to be incompetent or to act in a disorderly or improper manner, that person shall be discharged immediately on the requisition of the City Engineer, and such person shall not again be employed on the work.

5-506 Temporary Suspension of Work The City Engineer shall have the authority to suspend the work wholly or in part, for such period as City Engineer may deem necessary, due to unsuitable weather or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as City Engineer may deem necessary, due to the failure on the part of the Contractor to carry out orders given, or to perform any provisions of the contract. The contractor shall immediately obey such order of the City Engineer and shall not resume the work until ordered in writing by the City Engineer.

In the event that suspension of work is ordered as provided above, and should such suspension be ordered by reason of the failure of the Contractor to carry out orders or to perform any provision of the contract; or by reason of weather conditions being unsuitable for performing any item or items of work which, in the sole opinion of the Engineer, could have been performed prior to the occurrence of such unsuitable weather conditions had the Contractor diligently prosecuted the work when weather conditions were suitable: the Contractor, at Contractor's expense, shall do all the work necessary to provide a safe, smooth and unobstructed passageway through construction for use by public traffic during the period of such suspension as provided in Section 7-1.08, "Public Convenience," and 7-1.09, "Public Safety," of the Standard Specifications, and as provided in the Contract Specifications. In the event that the Contractor fails to perform the work above specified, the City may perform such work and the cost thereof will be deducted from moneys due or to become due the Contractor.

5-507 Time of Completion and Liquidated Damages It is agreed by the Contractor that in case all the work called for under the contract is not completed before or upon the expiration of the time limit as set forth in the Contract, damage will be sustained by the City of Lodi, and that it is and will be impracticable to determine the actual damage which the City will sustain in the event of and by reason of such delay; and it is therefore agreed that the Contractor will pay to the City of Lodi the sum as specified in Section

6-04.03 "Beginning of Work, Time of Completion and Liquidated Damages" per day for each and every day's delay beyond the time prescribed to complete the work; and the Contractor agrees to pay such liquidated damages as herein provided, and in case the same are not paid, agrees that the City of Lodi may deduct the amount thereof from any moneys due or that may become due the Contractor under the contract.

It is further agreed that in case the work called for under the contract is not finished and completed in all parts and requirements within the time specified, the City Council shall have the right to extend the time for completion or not, as may seem best to serve the interest of the City; and if it decides to extend the time limit for the completion of the contract, it shall further have the right to charge to the Contractor, Contractor's heirs, assigns or sureties, and to deduct from the final payment for the work, all or any part as it may deem proper, of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the contract, and which accrue during the period of such extensions, except that the cost of final surveys and preparation of final estimate shall not be included in such charges.

The Contractor shall not be assessed with liquidated damages nor the cost of engineering and inspection during any delay in the completion of the work caused by acts of God or of the public enemy, acts of the City, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes; provided that the Contractor shall, within 10 days from the beginning of any such delay, notify the City Engineer in writing of the causes of delay, who shall ascertain the facts and the extent of the delay, and the City Engineer's findings of the facts thereon shall be final and conclusive.

5-508 Termination of Contract Failure to prosecute the work diligently is grounds for termination of the Contractor; control over the work by the City of Lodi as provided in Section 14394 of the Government Code of the State of California.

5-509 Right-of-Way The necessary rights-of-way and easements for the work will be provided by the City of Lodi. The Contractor shall make arrangements and pay all expenses for additional area required by Contractor outside of the limits of right-of-way, unless otherwise provided in the Special Provisions.

5-600 MEASUREMENT, ACCEPTANCE AND PAYMENT

5-601 Progress Payments The City Engineer, once each month after actual construction work is started, shall make an estimate as to the total amount of the work done and materials furnished by the Contractor to the last day of the preceding month.

The City of Lodi shall retain 10 percent of the estimated value of said work and the balance less any previous payments shall be paid to the Contractor.

The retained percentage as specified above will be held by the City and will be due and payable to the Contractor 30 days after filing of notice of completion, provided no liens have been filed.

5-602 Substitution of Securities for Withheld Amount Pursuant to Section 22300 of the Public Contract Code of the State of California, securities may be substituted for any moneys withheld by a public agency to ensure performance under a contract. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the public agency, or with a state or federally chartered bank as the escrow agent, who shall pay such moneys to the Contractor, upon satisfactory completion of the contract.

5-603 Final Acceptance of the Work The contractor will notify the Engineer in writing of the completion. The Engineer will check as to the actual completion, and when satisfied will recommend acceptance to the City Council. The date of completion will be the date of acceptance of the work by the City Council.

5-604 Extra Work Extra work shall conform to Section 4-1.03D, of the Standard Specifications. Payment for extra work will be established by agreement between the Contractor and the City. If no agreement can be reached, as to the exact cost of the extra work, payment will be made by force account as provided in Section 9-1.03 of the Standard Specifications.

5-605 Notice of Potential Claim

This section supersedes Section 9-1.04 of the January 1988 Edition of the State of California, Business and Transportation Agency, Department of Transportation, Standard Specifications.

The Contractor shall not be entitled to the payment of any additional compensation for any cause including any act or failure to act by the Engineer to the happening of any event, thing, or occurrence unless the Engineer has been notified in writing of a potential claim as hereinafter specified; provided, however, that compliance with this Section 5-605 shall not be a prerequisite as to matters within the scope of the protest provisions in Section 5-102, "Alterations", or the notice provisions in Section 5-507, "Time of Completion and Liquidated Damages", nor to any claim which is based on differences in measurements or errors of computation as to contract quantities.

The written notice of potential claim shall state the reasons the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible, the amount of the potential claim. The notice as above required must have been given to the Engineer prior to the time that the Contractor shall have performed the work giving rise to the potential claim for additional compensation. If based on an act or failure to act by the Engineer, or in all other cases within 15 days after the happening of the event, thing, or occurrence giving rise to the potential claim.

It is the intention of this Section 5-605 that differences between the parties arising under and by virtue of the contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that there shall be no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing, or occurrence for which no written notice of potential claim was filed.

5-605.5 Determination of Rights

If the monetary amount of all the Contractor's claims arising under or by virtue of the contract does not exceed \$25,000, such claims are subject to determination or rights under the contract by a hearing officer of the City of Lodi. The party seeking a determination of rights shall give notice in writing of the claim to the other party and to the City Council of the City of Lodi, setting forth the facts on which the claim is based. Such notice shall be given no later than six months after the issuance of the final estimate.

The City Council of the City of Lodi will appoint a hearing officer to hear such claim within 60 days after such notice before completion of the contract, unless the City consents to earlier appointment. The hearing officer will hear and determine the controversy and render a decision in writing within 60 days after appointment, unless otherwise agreed to by the parties or unless for good cause the hearing officer extends such time. Each party shall bear its own costs and shall pay one-half of the cost of the hearing.

Rules and regulations adopted by the City Council of the City of Lodi pursuant to Section 14380 of the Government Code will govern the conduct of the hearings, including requirements as to pleadings and other documents to be filed. The rules and regulations may be obtained from the City Council of the City of Lodi.

Compliance with the notice requirements of this section does not relieve the Contractor of its responsibility for complying with any notice or protest requirement specified in these specifications (e.g., Sections 5-102, "Alterations"; 5-507, "Time of Completion and Liquidated Damages"; and 5-605, "Notice of Potential Claim"), nor does compliance with the notice requirements of this section relieve the Contractor of responsibility for complying with the claims submission requirements in Section 5-606, "Final Payment".

5-700 STANDARD SPECIFICATIONS

The work embraced herein shall be done in accordance with the appropriate provisions of construction details of the specifications of the State of California, Department of Transportation, Agency, January 1988, "insofar as the same may apply, which specifications are hereinafter referred to as the Standard Specifications and in accordance with the following Special Provisions.

And the Contractor further agrees that the payment of the final amount due under the contract, and the adjustment and payment for any work done in accordance with any alterations of the same, shall release the City of Lodi, the City Council, and all officers and employees from any and all claims or liability on account of work performed under the contract or any alteration thereof.

It is mutually agreed between the parties to the contract that any payments made under the contract, except the final payment, shall not be conclusive evidence of the performance of the contract, either wholly or in part, against any claim of the City of Lodi, and no payment shall be construed to be an acceptance of any defective work or improper materials.

5-606 Final Payment The City Engineer shall, after the satisfactory completion of the contract, make a final estimate of the amount of work done thereunder, and the value of such work, and the City of Lodi shall pay the entire sum so found to be due after deducting therefrom all previous payments and all amounts to be kept and all amounts to be retained under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment. The final payment shall not be due and payable until the expiration of 30 days after filing of notice of completion provided no liens have been filed.

If the address to which the notice to the City Council of the City of Lodi or to the Department is to be changed, the Department will notify the Contractor in writing of such change. The Contractor may change the address to which notices are to be sent by giving the Department written notification of such change of address.

The notices required by this section shall be sent as follows:
(a) to the City Council of the City of Lodi, 3006, Lodi, California, 95241-1910; (b) to the Department of Public Works, City of Lodi, 3006, Lodi, California, 95241-1910; and (c) to the Contractor: such notices will be sent to the business address set forth in the proposal.

Whenever in the contract documents or the Standard Specifications the following terms are used, they shall be understood to mean and refer to the following;

Department of Transportation, or
Division of Highways - Department
of Public Works of the City of Lodi

City Engineer - Public Works Director
of the City of Lodi

Director of Public Works - Public
Works Director and City Engineer
of the City of Lodi

Engineer - The Public Works Director
and City Engineer or designated agent

Laboratory - The designated laboratory
authorized by the City of Lodi to test
materials and work involved in the
contract

State - The City of Lodi, California

Other items appearing in the Standard Specifications, the General Provisions, and the Special Provisions, shall have the intent and meaning specified in Section 1, Definition of Terms of the Standard Specifications.

DIVISION ONE - GENERAL REQUIREMENTS

SECTION 01100 - 'ADDITIONAL ITEM(S) OF WORK

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A Work included:

To allow the City of Lodi to compare total costs of portions of the work. Additional Item(s) of Work have been established in this Section of these Specifications and shown on the Drawing.

B. Related work described elsewhere:

1. Pertinent Sections of these Specifications describe materials and methods required under the various "Additional Item(s) of Work".
2. The method for stating the proposed Contract Amount for "Additional Item(s) of Work" is described on the bid form.

1.02 SUBMITTALS:

All "Additional Item(s) of Work" described in this Section of these Specifications are required to be reflected in the bid submitted on the Bid Form for this Work.

1.03 PRODUCT HANDLING:

If the City of Lodi elects to proceed on the basis of one or more of the "Additional Items of Work", make all modifications to the Work required in the furnishing and installation of the selected "Additional Item(s) of Work" to the approval of the City Engineer and at no additional cost or additional time to the City of Lodi except as proposed on the Bid Form.

PART 2.00 - PRODUCTS

2.01 BID "ADDITIONAL ITEM OF WORK" NO. ONE:

Furnish and install concrete masonry unit landscape wall, landscape retaining wall and footing.

2.02 BID "ADDITIONAL ITEM OF WORK;" NO. TWO:

Furnish and install 5' wide exposed aggregate walkway.

PART 3.00 - EXECUTION

3.01 ADVANCE COORDINATION:

Immediately after award of Contract, and to the maximum extent practicable, thoroughly and clearly advise all necessary personnel and suppliers as to the nature and extent of "Additional Item(s) of Work" selected by the City of Lodi. Use all means necessary to alert personnel and suppliers involved as to all changes in the Work caused by the City of Lodi's selection of additional items.

END OF SECTION

SECTION 01710 - CLEANING

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A Work included:

Through the construction period, maintain the building and site in a standard of cleanliness in this Section.

B. Related work described elsewhere:

In addition to standards described in this Section, comply with all requirements for cleaning up as described in various other Sections of these Specifications.

1.02 QUALITY ASSURANCE

A Inspection:

Conduct daily inspection, and more often if necessary, to verify that requirements of cleanliness are being met.

B. Codes and standards:

In addition to the standards described in this Section, comply with all pertinent requirements of governmental agencies having jurisdiction.

PART 2.00 - PRODUCTS

2.01 CLEANING MATERIALS AND EQUIPMENT:

Provide all required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.02 COMPATIBILITY:

Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material or as approved by the City Engineer.

PART 3.00 -- EXECUTION

3.01 PROGRESS CLEANING:

A. General:

1. Retain all stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.
2. Do not allow the accumulation of scrap, debris, waste material, and other items not required for construction of this Work.
3. At least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
4. Provide adequate storage for all items awaiting removal from the job site, observing all requirements for fire protection and protection of the ecology.

B. Site:

1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove all such items to the place designated for their storage.
2. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site; restack, tidy, or otherwise service all arrangements to meet the requirements of paragraph **3.01-A-1** above.
3. Maintain the site in a neat and orderly condition at all times to the approval of the City Engineer.

C. Structures:

1. Weekly, and more often if necessary, inspect the structures and pick up all scrap, debris and waste material. Remove all such items to the place designated for their storage.
2. As required preparatory to installation of succeeding material, clean the structures or pertinent portions thereof to the degree of cleanliness recommended by the manufacturer of the succeeding material, using all equipment and materials required to achieve the required cleanliness.

D. Graffiti:

As directed by the City Engineer, promptly remove evidence of graffiti.

3.02 **FINAL CLEANING:**

A. Definition:

~~Except as~~ otherwise specifically provided, "clean" (for the purpose of this article) shall be interpreted ~~as~~ meaning the level of cleanliness generally provided by commercial building maintenance subcontractors using commercial quality building maintenance equipment and materials.

B. General:

Prior to completion of the work, remove from the job site all tools, surplus materials, equipment, scrap, debris and waste. Conduct final progress cleaning ~~as~~ described in Article 3.01 above.

C. Site:

Unless otherwise specifically directed by the City Engineer, hose down all paved areas on the site and all public sidewalks directly adjacent to the site. Completely remove all resultant debris.

D. Structures:

1. Exterior:

Visually inspect all exterior surfaces and remove all traces of soil, waste material, smudges, and other foreign matter. Remove all traces of splashed materials from adjacent surfaces. If necessary to achieve a uniform degree of exterior cleanliness, hose down the exterior of the structure. In the event of stubborn stains not removable with water, the City Engineer may require light sandblasting or other cleaning at no additional cost to the City of Lodi.

E. Timing:

Schedule final cleaning ~~as~~ approved by the City of Lodi's Representative to the City of Lodi to accept a completely clean project.

3.03 **CLEANING DURING CITY OF LODI'S OCCUPANCY**

Should the City of Lodi occupy the Work or any portion thereof prior to its completion by the Contractor and acceptance by the City of Lodi, responsibilities for the interim and final cleaning of the occupied spaces shall be ~~as~~ determined by the City Engineer in accordance with the General Conditions of the Contract.

END OF SECTION

■

DIVISION TWO - SITE WORK

SECTION 02010 - SUBSURFACE CONDITIONS

PART 1.00 - GENERAL

1.01 DESCRIPTION:

The Contractor shall visit the site and acquaint himself with all existing conditions. Prior to bidding, bidders may make their own subsurface investigation **to** satisfy themselves **as** to site and subsurface conditions; but such subsurface investigations shall be performed only under time schedules and arrangements.

1.02 QUALITY ASSURANCE:

The City will provide testing and continuous inspection **of** work in connection with excavating, filling, compaction, and grading. Readjust all requirements but **make** no deviations **from** the Contract Documents without specific and written approval of the City Engineer.

PART 2.00 - PRODUCTS

Not Used.

PART 3.00 - EXECUTION

Not Used.

END OF SECTION

SECTION 02100 - DEMOLITION, CLEARING, AND GRUBBING

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A. Work included:

Demolition, clearing, and grubbing required for this Work includes those items ~~so~~ indicated on the drawings.

1. Dust control.
- ~~2.~~ Removal of chain link fencing.
3. Clearing, Grubbing site.

B. Related work described elsewhere:

1. Excavating, filling, and grading: Section 02210

C. Definitions:

The term "demolition, clearing, and grubbing", as used herein, includes the removal of all existing objects (except for those objects designated to remain) down to the existing ground level, plus such other work as is described in this Section ~~of~~ these Specifications.

1.02 QUALITY ASSURANCE

In addition to complying with all pertinent codes and regulations, comply with the requirements of all insurance carriers providing coverage for this work.

1.03 JOB CONDITIONS

A. Dust Control:

Use all means necessary to prevent spread of dust during performance of the work of this Section. Thoroughly moisten all surfaces as required to prevent dust being a nuisance to the public, neighbors, and concurrent performance of other work on the site. The City will provide water for dust control to the Contractor. There will be no charge for dust control water.

B. Burning:

On-site burning will **not** be permitted.

C. Protection:

Use all means necessary to protect existing objects designated to remain and, in the event of damage, immediately make all repairs and replacements necessary to the approval of the City Engineer and at no additional cost to the City of Lodi.

PART 2.00 - PRODUCTS

2.01 EXPLOSIVES:

Do not use explosives on this Work.

2.02 OTHER MATERIALS:

All other materials, not specifically described but required for proper completion of the work of this Section, shall be as selected by the Contractor subject to the approval of the City Engineer.

PART 3.00 - EXECUTION

3.01 PREPARATION:

A. Notification:

Notify the City Engineer at least two full working days prior to commencing the work of this Section.

B. Site Inspection:

1. Prior to all work of this Section, carefully inspect the entire site and all objects designated to be removed and be preserved.
2. Locate all existing utility lines and determine all requirements for disconnecting and capping.
3. Locate all existing active utility lines traversing the site and determine the requirements for their protection.

C. Clarification:

1. The Drawings do not purport to show all objects existing on the site.
2. Before commencing the work of this Section, verify with the City Engineer all objects to be removed and all objects to be preserved.

D. Scheduling:

- I. Schedule all work in a careful manner with all necessary consideration for neighbors and the public.

E. Disconnection of utilities:

Before starting site operations, disconnect or arrange for the disconnection of all utility services traversing the site and designated to remain.

F. Protection of utilities:

Preserve in operating condition all active utilities traversing the site and designated to remain.

3.02 DEMOLITION AND REMOVAL:

Demolish and remove all materials designated to be removed, and all other items designated to be removed or necessary to be removed prior to construction of this Work. Demolished materials shall be considered to be property of the Contractor and shall be completely removed from the job site, with the exception of the chain link fence which shall be delivered to the City Municipal Service Yard by the Contractor.

3.03 CLEARING AND GRUBBING

Grubbing:

Remove all surface rocks, turf, and all stumps, roots and other vegetation and all debris within the limits of construction.

3.04 SAFETY:

It shall be the contractor's responsibility to establish and implement all safety measures during the demolition process. Any damage to the structure caused by excessive demolition work shall be corrected by the contractor at no additional cost to the City of Lodi.

3.05 REMOVAL OF DEBRIS:

Remove all debris from the site and dispose of all removed material legally. Leave the site in a neat and orderly condition to the approval of the City Engineer.

END OF SECTION

SECTION 02210 - EXCAVATING. TRENCHING. FILLING. AND GRADING

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A Work included:

Excavating, trenching, filling, and grading required for this Work includes, but is not necessarily limited to:

1. Excavating for footings and foundations:
2. Filling and backfilling to attain indicated grades:
3. Trenching and trench backfilling;
4. Rough and finish grading of the site;

B. Related work described elsewhere:

1. Clearing, and grubbing: Section 02100

1.02 JOB CONDITIONS:

A Dust control:

1. Use all means necessary to control dust on and near the Work and on and near all off-site borrow areas if such dust is caused by the Contractor's operations during performance of the Work or if resulting from the condition in which the Contractor leaves the site.
2. Thoroughly moisten all surfaces as required to prevent dust being a nuisance to the public, neighbors, and concurrent performance of other work on the site.

B. Protection:

1. Use all means necessary to protect all materials of this Section before, during, and after installation and to protect all objects designated to remain.
2. In the event of damage, immediately make all repairs and replacements necessary to the approval of the City Engineer and

at no additional cost to the City of Lodi.

1.03 CODES AND STANDARDS

In addition to complying with all pertinent codes and standards, all work shall be performed and material provided to comply with applicable portions of City of Lodi Standard Plans.

PART 2.00 - PRODUCTS

2.01 FILL MATERIAL:

A. Approval required:

All fill material shall be subject to approval of the City of Lodi's Representative.

B. Notification:

For approval of imported fill material, notify the City Engineer at least four working days in advance of intention to import material. designate the proposed borrow area. and permit the City Engineer to sample as necessary from the borrow area for the purpose of making acceptance tests to prove the quality of the material.

2.02 **ON-SITE** RLL MATERIAL:

All on-site fill material shall be soil or soil-rock mixture which is free from organic matter and other deleterious substance. It shall contain no rocks or lumps over three inches in greatest dimension. Engineered fill R value = 40, Plasticity index 8, passing the #4 sieve 100%. passing the #200 sieve 3% maximum. All import shall be first approved by the City Engineer.

2.04 TRENCH **AND** STRUCTURAL BACKFILL:

A. On-site fill material.

All on-site fill material used for trench and structural backfill shall meet the requirements of Article 2.02 above.

B. Imported material:

All imported material used for trench and structural backfill shall meet the requirements of Article 2.02 above.

2.05 OTHER MATERIALS:

All other materials, not specifically described but required for proper completion of the work of this Section, shall be as selected by the Contractor subject to the approval of the City Engineer.

PART 3.00 - EXECUTION

3.01 GENERAL.:

A. Familiarization:

Prior to all work of this Section, become thoroughly familiar with the site, site conditions, and all portions of the Work falling within this Section.

B. Backfilling prior to approvals:

1. Do not allow or cause any of the work performed or installed to be covered up or enclosed by work of this Section prior to all required inspections, tests and approvals.
2. Should any of the work be ~~so~~ enclosed or covered ~~up before~~ it has been approved, uncover ~~all~~ such ~~work at~~ no additional ~~cost~~ to the City of Lodi.
3. After the work has been completely inspected, tested, and ~~approved~~, make all repairs and replacements necessary ~~to restore~~ the work ~~to~~ the condition in which it ~~was~~ found at the time of uncovering, all ~~at~~ no additional cost ~~to~~ the City of Lodi.

3.02 **FINISH** ELEVATIONS AND LINES:

The City of Lodi will provide surveying to set line and grade elevations. Notify the City Engineer four (4) working days in advance of time lines and grades are to be set.

3.03 EXCAVATING:

A. Depressions resulting from removal of obstructions:

1. Where depressions result from, or have resulted from, the removal of surface or subsurface obstructions, open the depression to equipment working width and remove all debris and soft material

as directed by the City Engineer.

B. Excavating for structures:

1. Conform to elevations and dimensions shown within a tolerance of 0.10 ft., and extending a sufficient distance from footings and foundations to permit placing and removing concrete formwork, installation of services, other construction required, and for inspection.
2. In excavating for footings and foundations, take care not to disturb **bottom** of excavation:
 - a. Excavate by hand tools to final grade just before concrete is placed.
 - b. Trim bottoms to required lines and grades to leave solid base to receive concrete.
3. Excavate for footings and foundations only after general site excavating, filling and grading are complete.

C. Excavating for concrete curb, gutter, sidewalk and driveways:

Cut surface under concrete curb, gutter, sidewalk and driveways to comply with cross sections, elevations and grades.

3.04 PREPARATION OF SUBGRADE:

A. Scarifying:

1. After excavating as described for under footings and adjacent walks and slabs, secure the inspection and approval of the City Engineer and then compact to 95% relative compaction.
2. Under all exterior concrete slabs, pavement, walks, curbs and gutters compact to 90% maximum **dry** density to a depth of at least (8) eight inches (12" @ commercial driveway).
3. Subject to the approval of the City Engineer, rock encountered in the excavation may be broken into pieces not larger than three inches in maximum dimension and be incorporated in the fill material.

WELL #11-R ENCLOSURE

City of Lodi, California

EXCAVATING, TRENCHING, FILLING, AND GRADING

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4. Remove from the site all rock larger than three inches in maximum dimension. Rocks and stones larger than ½ inch in maximum dimension will not be permitted within the top 12 inches of finished grade in those areas outside of building and paved areas.

C. Compaction, general:

Compact each soil layer to at least the specified minimum degree; repeat compaction process until plan grade is attained.

D. Degree of compaction:

1. Compact all fill and backfill material to at least 90% maximum dry density. Areas under block walls compact to 95% maximum dry density.
2. Percentage of compaction indicated above shall be that percentage of maximum dry density obtainable by the ASTM designation D1557-70 method of compaction.

E. Degree of compaction:

1. Compact all fill and backfill material to at least 90% maximum dry density. Areas under block walls compact to 95% maximum dry density.
3. Percentage of compaction indicated above shall be that percentage of maximum dry density obtainable by the ASTM designation D1557-70 method of compaction.

F. Flooding and jetting:

Compaction by flooding and jetting is expressly prohibited.

3.05 GRADING:

A. General:

Except as otherwise directed by the City Engineer, perform all rough and finish grading required to attain the elevations indicated on the Drawings.

B. Grading tolerance:

1. Rough grade:
Building areas: Plus or minus 0.1 foot
2. Finish grade: Plus or minus 0.05 foot

C. Treatment after completion of grading:

1. After grading is completed and the City Engineer has finished his inspection, permit no further excavation, filling, or grading except with the approval of and inspection of the City Engineer.
2. Use all means necessary to prevent the erosion of freshly graded areas during construction and until such time as permanent drainage and erosion control measures have been installed.

3.06 TRENCHING:

A. General:

1. Perform all trenching required for the installation of items where the trenching is not specifically described in other Sections of these Specifications.
2. Make all trenches open vertical construction with sufficient width to provide free working space at both sides of the trench and around the installed item as required for caulking, joining, backfilling, and compacting.

B. Depth:

1. Trench as required to provide the elevations shown on the Drawings.
2. Where elevations are not shown on the Drawings, trench to sufficient depth to give a minimum of 18 inches of fill above the top of the pipe measured from the adjacent finished grade.

C. Correction of faulty grades:

Where trench excavation is inadvertently carried below proper elevation, backfill with approved material and then recompact to provide a firm and unyielding subgrade and/or foundation to the approval of the City Engineer and at no additional cost to the City of Lodi.

D. Trench bracing:

1. Properly support all trenches in strict accordance with all pertinent rules and regulations.

E. Grading and stockpiling trenched material:

1. Control the stockpiling **of** trenched material in a manner to prevent water running into the **excavations**.
2. Do not obstruct the surface drainage **but** provide means whereby storm and waste waters are diverted into existing gutters, other temporary drains, or surface drains.

3.07 BACKFILL FOR PIPES:

Place backfill in layers which will compact **to** six inches maximum, concurrently on **both** sides of trench. Thoroughly compact each layer **with** mechanical tampers after bringing to required moisture content. Compaction by flooding is expressly prohibited.

3.08 BORROW PITS:

Do not make borrow pits on the site.

3.09 SURPLUS EARTH MATERIAL:

Stockpile **all** surplus earth, not needed to complete filling and grading, outside the limits of work as directed by the City Engineer. Contractor shall remove and dispose of **all** surplus earth not required for the Work.

3.10 INADEQUATE SOIL CONDITIONS:

The adequacy **of** all soil bearing value shall be determined by the City Engineer. Should soil of inadequate density and bearing capacity be encountered at the elevations shown on the Drawings, and where new fill is to be placed upon loose existing fill material exposed by excavation, **carry** the excavation to the depth required to attain soil of bearing quality **as** determined by the City Engineer.

3.11 CLEAN UP:

Upon completion of the work of this Section, remove all rubbish trash, and debris resulting from operations. Remove **surplus** equipment and **tools**. Leave the site in a neat and orderly condition acceptable to **the** City Engineer.

END OF SECTION

SECTION 02700 - CHAIS LINK FENCING

PART 1.00 - GENERAL

1.01 DESCRIPTION:

Chain link fencing required for this Work is indicated on the Drawings and includes, but is not necessarily limited to, posts, braces, fencing material.

1.02 QUALITY ASSURANCE:

For actual installation of chain link fencing use only personnel completely trained and experienced in installation of the approved materials and thoroughly familiar with the original design and the approved Shop Drawings.

1.03 PRODUCT HANDLING:

A. Protection:

Use all means necessary to protect chain link fencing materials, before, during, and after installation and to protect the installed work and materials of all other trades.

B. Replacements:

In the event of damage, immediately make all repairs and replacements necessary to the approval of the City Engineer and at no additional cost to the City of Lodi.

1.04 SHOP DRAWINGS:

Within 35 days of the award of contract and before any chain link fencing has been fabricated and delivered to the job site, submit complete shop drawings of the proposed installation prior to fabrication in accordance with the General Provisions.

PART 2.00 - PRODUCTS

2.01 CHAIN LINK FENCING:

All chain link fencing and associated material shall be to the dimensions, design, and arrangements indicated on the Drawings. Unless otherwise shown on the Drawings or in these Specifications, miscellaneous details shall be in accordance with Cal Trans Standard Plan F-10.

		<u>Fence Ht.</u>	<u>Material</u>	<u>Minimum Load</u>
A.	Line Posts	6'	1-1/2" Pipe (1.90 o.d.)	155
		8'	2" Pipe (2.375" o.d.)	270
B.	End, Latch & Corner posts	6'	2" Pipe (2.375" o.d.)	270
		8'	2-1/2" Pipe (2.875" o.d.)	500
C.	Top Rail & Braces	all	1-1/2" Pipe (1.66" o.d.)	200
D.	Fencing shall be 6 ft. high and 8 ft. high where shown on the Drawings.			
E.	Terminal posts shall be 4 in., 9.10#/ft.			
F.	Line posts shall be 2-1/2 in., 3.65#/ft.			
G.	Top rail shall be 1-5/8 in., 2.27#/ft.			
H.	Tension wire: 9 ga.			
I.	Footings:			
	1.	12" Diameter x 36" deep @ 6' high and 48" deep @ 8' high fence: 2500 psi.		
G.	Fencing fabric: 11 ga. 2" mesh, knuckled salvage top and bottom.			
H.	Fittings shall be galvanized steel.			

PART 3.00 - EXECUTION

3.01 SURFACE CONDITIONS:

A. Inspection:

1. Prior to all Work of this Section, carefully inspect the installed Work of all other trades and verify that all such work is complete to the point where this installation may properly commence.

2. Verify that chain link fencing and gates may be installed in strict accordance with the original design and the approved Shop Drawings.

B. Discrepancies:

1. In the event of discrepancy, immediately notify the City Engineer.
2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.02 INSTALLATION:

Install all chain link fencing and gates in strict accordance with the original design and the approved Shop Drawings, anchoring all components firmly for long life under hard use and in accordance with the manufacturer's published recommendations.

END OF SECTION

DIVISION THREE - CONCRETE

SECTION 03100 • CONCRETE

PART 1.00 - GENERAL

1.01 DESCRIPTION:

- A. Furnish and install all reinforcement and associated items required and/or indicated on the Drawings for all cast-in-place concrete.
- B. Cast-in-place concrete required for this work is indicated on the Drawings, but is not necessarily limited to:
 - 1. Footings and foundations:
 - 2. Exterior flat work, curb & gutter.

1.02 QUALITY ASSURANCE

- A. Qualifications of workmen:

Provide at least one person who shall be present at all times during execution of this portion of the Work and who shall be thoroughly familiar with the type of materials being installed, the referenced standards, and the requirements of this Work, and who shall direct all work performed under this Section.

- B. Codes and standards:

- 1. In addition to complying with all pertinent codes and regulations, comply with all pertinent recommendations of "Structural Concrete for Buildings", publication ACI 301-72, latest edition, of the American Concrete Institute.
- 2. Where provisions of pertinent codes and standards conflict with this Specifications, the more stringent provisions shall govern.

- C. Testing:

The City Engineer will take concrete cylinders for testing during placement. The City of Lodi will provide testing. In the event the concrete samples fail to meet minimum standards, the Contractor shall be responsible for replacing substandard concrete at no additional expense to the City of Lodi.

1.03 TRANSIT-MIX DELIVERY SLIPS:

- A. **Keep** a record at the job site **showing** time and place of each pour of concrete, together with transit-mix delivery slip certifying contents of the pour.
- B. **Make the** record available to the City Engineer for his inspection upon request.
- C. Upon completion of this portion of the Work, deliver the record and the delivery slips to the City Engineer.

1.04 PRODUCT HANDLING:

- A. Protection:

Use all means necessary to protect cast-in-place concrete materials before, during and after installation and to protect the installed work and materials of all other trades.

- B. Replacements:

In the event of **damage**, immediately make all repairs and replacements necessary to the approval of the City Engineer and at no additional cost to the City of Lodi.

PART 2.00 - PRODUCTS

2.01 FORM MATERIALS:

Form lumber:

All form lumber in contact with exposed concrete shall be new except as allowed for re-use of forms in Part 3.00 of this Section of these Specifications. If clean, neat lines can be cut, the Contractor may pour against undisturbed earth with prior approval of the City Engineer. If any sloughing or caving of material occurs, both front and back forms may be required.

2.02 CONCRETE REINFORCEMENT:

All concrete reinforcement materials shall be new, free from rust, and complying with the following reference standards:

A. Bars for reinforcement:

"Specifications for Deformed Billet-Steel Bars for Concrete Reinforcement", ASTM A-615, #5 Bars and smaller, Grade 40 #6; Bars and larger, Grade 60.

B. Wire for reinforcement:

"Specifications for Cold-Drawn Steel Wire for Concrete Reinforcement", ASTM A-82.

C. Wire fabric:

"Specifications for Wire Fabric for Concrete Reinforcement", ASTM A-185.

D. All reinforcement shall be cleaned of dirt, rust, grease, loose scale and any other substance that may prevent concrete bonding.

2.03 CONCRETE:

A. General:

1. All concrete, unless otherwise specifically permitted by the City Engineer, shall be transit-mixed in accordance with ASTM C-94.
2. The control of concrete production shall be under supervision of a recognized testing laboratory, selected and paid for by the Contractor as described in Section 01400 of these Specifications, who shall design the mixes.

B. Quality:

1. All concrete shall have the following minimum compressive strengths at 28 days and shall be proportioned within the following limits:

Location of Concrete:	Min. psi @ 28 days	Max. size Aggregate:	Min. sacks of cement/ cu. Yd.:	Max slump in Inches
Footings; grade beams. & pedestals:	2500	1-1/2 inch	5.25	4

Exterior
slabs and
sire work:

25(00) 3 4 inch 5.00 4

- z. Concrete that is **subject** to freezing temperatures while wet shall have a water-cement ratio not exceeding six gallons per sack **and** shall contain entrained air.

C. Cement:

All cement shall be portland cement conforming to ASTM C-150, type II, except type **V** for all concrete in contact with earth, and shall be the product **of** one manufacturer; the temperature of cement delivered to the plant shall not exceed 150 degrees F.

D. Aggregates:

1. All aggregates shall conform to ASTM C-33, except as modified herein.
2. Coarse aggregate **shall** have a minimum cleanliness value **of** 75 as determined by State of California Test Method **227-E**.
3. Fine aggregate **shall** have a minimum **of** sand equivalent of **75** as determined by State of California Test Method 217-I.
4. Aggregates for exposed aggregate finish shall be "California Gold" coloration.

E. Water:

All water shall be clean and free from deleterious matter

2.04 OTHER MATERIALS:

All other materials, not **specifically** described but required for proper completion **of** concrete formwork, **shall be** as selected by the Contractor subject to the advance approval of the City Engineer.

PART 3.00 - EXECUTION

3.01 SURFACE CONDITIONS:

Inspection:

Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete **to** the point where this installation **may** properly commence.

3.02 CONSTRUCTION OF FORMS:

A. General:

1. Construct all required forms to **be** substantial, sufficiently tight to prevent leakage of mortar, and able to **withstand** excessive deflection with wet concrete.
2. Make proper provision for all openings, offsets, recesses, anchorage, blocking, and other features of the Work as **shown** or required.
3. Forms previously used shall be thoroughly cleaned before re-use. Before concrete is placed within any form, all inside surfaces of the forms shall be thoroughly coated with an approved oil.

B. Embedded items:

Set all required steel frames, angles, grilles, bolts, inserts, and other such items required to **be** anchored in the concrete' before the concrete is placed.

C. Bracing:

1. Properly brace and tie the forms together **so** as to maintain position and shape and to ensure safety to personnel.
2. Construct all bracing, supporting members, and centering of **ample size** and strength to safely carry, without excessive deflection, all **dead** and live loads to which they may be subjected.
3. Properly **space** the forms **apart** and securely **tie** them together, using metal spreader ties that give positive tying and accurate spreading.

D. Wetting:

Keep ~~forms~~ sufficiently wetted to prevent joints opening up before concrete is placed.

3.03 BENDING REINFORCEMENT

A. General:

1. Fabricate all reinforcement in strict accordance with the approved Shop Drawings.
2. Do not use bars with kinks or bends not shown on the Drawings or on the approved Shop Drawings.
3. Do not bend or straighten steel in a manner that will injure the material.

B. Design:

1. Bend all bars cold.
2. Make bends for stirrups and ties around a pin having a diameter not less than two times the minimum thickness of the bar.
3. Make bends for other bars, including hooks, around a pin having diameter not less than six times the minimum thickness of the bar for #8 and smaller and eight times the thickness of the bar for #9 and larger.

3.04 PLACING REINFORCEMENT

A. General:

Before the start of concrete placement, accurately place all concrete reinforcement, positively securing and supporting by concrete blocks, metal chairs or spacers, or by metal hangers.

B. Clearance:

1. Preserve clear space between bars of not less than one times the normal diameter of round bars.
2. In no case let the clear distance be less than 1 inch or less than $1\frac{1}{3}$ times the maximum size of aggregate.

3. Provide the following minimum concrete covering of reinforcement:

- | | | |
|----|--|--|
| a. | Concrete below ground deposited against forms: | Two inches |
| b. | Concrete deposited against earth: | Three inches |
| c. | Concrete elsewhere: | As indicated on the Drawings or otherwise approved by the City Engineer. |

C. Splicing:

1. Horizontal bars:

- a. Place bars in horizontal members with minimum laps at splices sufficient to develop the strength of the bars.
- b. Bars may be wired together at laps.
- c. Wherever possible, stagger the splices of adjacent bars.
- d. Splice 40 bar diameters minimum.

2. Wire fabric:

Make all splices in wire fabric at least 1-1/2 meshes wide.

3. Other splices:

Make only those other splices that are indicated on the approved Shop Drawings or specifically approved by the City Engineer.

D. Dowels:

Place all required steel dowels and securely anchor them into position before the concrete is placed.

E. Obstructions:

In the event conduits, piping, inserts, sleeves, or any other items interfere with placing reinforcement as indicated on the Drawings or as otherwise

required. immediately consult the City Engineer and obtain approval of new procedure before placing concrete.

3.05 PLACING CONCRETE:

A. Notification:

Notify the City Engineer **at least** 48 hours before placing concrete. Concrete shall not be placed without the approval of the **City** Engineer. Placing concrete without notifying the Engineer may be reason for rejection of the work.

B. Method:

1. Prior to placing concrete, the subgrade and inside face of forms shall **be** thoroughly wetted **as** the City Engineer may direct.
2. Concrete shall not be deposited when it **appears** likely that the air temperature may **fall below** 40° F during the placing of concrete or within **the** following 24 hours, unless special approval has been received from **the** Engineer prior to placing of concrete. Concrete which, in the opinion of the Engineer, **has been** damaged by freezing shall **be** removed and **replaced**.
3. Convey concrete from mixer **to** place of final deposit **by** methods that will prevent separation and loss of materials.
4. Place concrete **as dry as possible** consistent with good workmanship, never exceeding the maximum specified slump.

C. Compaction:

1. Thoroughly consolidate all concrete by suitable means during placement, working it around **all** embedded fixtures **and** into corners of **forms**.
2. During placement, thoroughly compact the concrete **by** hand tamping and by mechanical vibration.

D. Acceptability:

Do not use retempered concrete or concrete that **has** been contaminated by foreign materials.

3.06 CONSTRUCTION JOISTS:

A. Location:

Make and locate construction joints so as to not impair the strength of the structure.

B. Approval:

Obtain the City Engineer's approval of location of all construction joints and control joints in the Work prior to start of concrete placement.

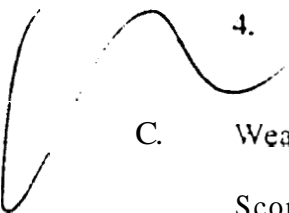
3.07 LEVELING AND FINISHING:

A. General:

1. Tamp slabs with a jitterbug to depress the rock, and then punch-floort with a bullfloat as necessary.
2. Take care that the wet slab meets the screeds accurately and does not rise above or lower below them.

B. Finishing:

1. Unless otherwise indicated on the Drawing, make all slabs even and uniform in appearance and, where no slope is required, level within plus or minus 1/8 inch in ten feet.
2. Tolerances: Dimensional tolerances for concrete work are listed below. Work done outside of these tolerances will be rejected by the Engineer.
 - it. Curb, Gutter, Sidewalk Thickness: Up to 1/4" below specified thickness.
 - b. Flow Line: Puddles shall not exceed 1/4 inch in depth, 6 inches in width or 10 feet in length. Grinding in excess of 1/2 inch in depth and the use of epoxy fillers are not acceptable.
 - c. Sidewalk Crossfall: Total crossfall on 5-foot sidewalks shall be within 1/2 inch of design.
3. After steel troweling, apply a light groom finish to concrete slabs at sidewalks.

- 
4. Apply an exposed aggregate finish at walks and driveways where designated on the Drawings.

C. Weakened Plane Joints:

Score joints shall be formed in the fresh concrete using a jointer to cut the groove so that a smooth uniform impression is obtained. All joints shall be struck before and after brooming. Conform to requirements of the City Standard Plans.

D. Expansion Joints and Edging:

Expansion joints shall be formed provided at the location and intervals as shown on the plans and at all locations where concrete paving abuts buildings, or other permanent vertical structures. Approved joint materials shall be placed with top edge 1/4" below the paved surface and shall be formed in the fresh concrete using an edging tool to provide a smooth uniform impression. All edges shall be struck before and after brooming. After the curing period, expansion joints shall be carefully cleaned and filled with approved backer rod and joint compound flush with the paved surfaces or overflow from joint.

3.08 CURING:

Concrete cure shall be accomplished by either the water, pigmented curing compound or waterproof membrane method. White pigmented curing compound shall not be used on exposed surfaces.

3.09 HOT WEATHER REQUIREMENTS:

A. Placement:

1. Do not use concrete with a placing temperature that will cause difficulty from loss of slump, flash set, or cold joints.
2. Maintain a concrete temperature during placement of less than 90 degrees F.
3. Use all means necessary to avoid drying the concrete prior to finishing operations.

B. Protection:

Provide and use all required windbreaks, sunshades, fog sprays, and other devices to protect the concrete.

3.10 DEFECTIVE WORK:

A. Inspection:

- 1. Immediately after forms and curing membranes have been removed, inspect all concrete surfaces and patch all pour joints, voids, rock pockets, form tie holes, and other imperfections before the concrete is thoroughly dry.**
- 3. Remove and replace all defective concrete. Defective concrete shall be judged as any poorly placed concrete that is below levels of acceptable quality set by the City of Lodi prior to commencement of Work.**

END OF SECTION

DIVISION FOUR - MASONRY

SECTION 04200 - CONCRETE UNIT MASONRY

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A. Work included:

Concrete unit masonry required for his **Work** is indicated on the Drawings.

B. Related work described elsewhere:

1. Concrete Section 03100

1.02 QUALITY ASSURANCE:

A. Qualifications of workmen:

1. For the actual cutting and placing of concrete masonry units, use only skilled journey-level masons who **are** thoroughly experienced with the materials and methods specified and thoroughly familiar with the design requirements.
2. In acceptance or rejection of installed concrete masonry units, **no allowance** will **be** made for **lack** of skill on the **part** of workers.
3. Provide one skilled journey-level mason who shall **be** present at all times during execution of the work of this Section and who shall personally direct the execution of this portion of the **work**.

B. Codes and standards:

In addition to complying with all pertinent codes and regulations, comply with the standards of masonry installation described in "Concrete Block **Masonry** Inspectors' Manual" published by the Technical Committee of the California Concrete Masonry Manufacturers Association.

1.03 SUBMITTALS:

A. Samples:

Within thirty-five (35) days after award of Contract, and before any concrete unit masonry materials are delivered to the **job** site, submit one Sample of each proposed concrete masonry unit to the City Engineer for approval in accordance with the General Provisions.

B. Certification:

Prior to delivery of concrete unit masonry to the job site, deliver to the City Engineer a letter from the **manufacturers of** the concrete masonry units certifying that **all** such concrete masonry units delivered to the job site are in strict conformance with the provisions of this Section of these Specifications.

1.0 PRODUCT HANDLING:

A. Protection:

Use **all** means **necessary** to protect the **materials** of this Section **before**, during, and after installation and to protect the installed work and materials of all other trades.

B. Replacements:

In the event of **damage**, immediately make all repairs and replacements necessary to the approval of the City Engineer and **at** no additional **cost** to the City of Lodi.

PART 2.00 - PRODUCTS

2.01 CONCRETE BLOCKS:

A. Manufacturers:

Manufacturers for masonry units **are** specified below **and** need no other approval as to manufacturer. Equivalent products of other manufacturers may be submitted for approval by the City Engineer **prior** to bid opening. Submittals for substitutions shall include a full colored sample of the substituted material. Submittals **will not be** accepted after seven (7) working days before the bid.

B. General:

Concrete blocks shall be Grade **A** units, split-face and precision **as** scheduled on the drawings, conforming to the ASTM Designation C-90 on project **as** manufactured **by** Basalite. Splitface Blocks shall be Basalite D-325. Precision units shall be natural grey.

C. Brick:

Brick shall be Muddox #1230 Mountain Rose, Jumbo 3-1/2 x 3-1/2 x 11-1/2 solid where shown on the Drawings.

D. Shrinkage:

Shrinkage of standard concrete blocks shall not exceed the amount recommended in ASTM C-426.

E. Water content:

1. **At** the time of delivery to the job site, concrete masonry units shall have **a** value, in **weight** of contained **water**, of not more than 35% of the fully saturated content **for** the unit tested.
2. Ship all units from the **factory**, and store **at** the job site, with all necessary protection to prevent increase of water content from rain and other sources.

F. Certification:

Certification required by Article 1.03-B of this Section of these Specifications shall show results of tests made not more than twelve **months** prior to delivery of concrete masonry units to the job site, shall prove compliance with the specified **values** and shall certify that **the** mix design, yield per batch, and curing procedures for the units delivered **to** the job site are equal to those submitted for the test.

2.02 MORTAR:

All mortar for concrete block shall conform with **ASTM C-476**, 1800 psi in 28 **days**, and shall consist of one part portland cement by volume, 1/4 to 1/2 part hydrated lime, and four parts of damp, loose sand, plus water, and with color to be selected by the City Engineer.

2.03 REINFORCEMENT STEEL:

All reinforcement steel required for concrete masonry units shall be the type and quality specified for cast-in-place concrete in Section 03100 of these Specifications.

2.04 GROUT

All grout shall be transit-mixed in accordance with **ASTMC-94** and shall consist of one part portland cement, 2-1/2 parts sand, **two** parts **pca** gravel, and adequate water to produce **a** concrete of approximately ten inches slump, and shall have an ultimate compressive strength of at least 2000 psi in 28 days.

2.05 ADMIXTURES FOR GROUT:

Use "Suconem GA", or an equal approved in advance by the City Engineer, in all grout for high-lift, following manufacturer's recommendations as approved by the City Engineer.

2.06 OTHER MATERIALS:

All other materials, not specifically described but required for a complete and proper installation of concrete unit masonry, shall be as selected by the Contractor subject to the approval of the City Engineer.

PAHT 3.00 - EXECUTION

3.01 SURFACE CONDITIOSS:

A. Inspection:

1. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
3. Verify that concrete unit masonry may be completed in strict conformance with all pertinent codes and regulations, the referenced standards, and the original design.

B. Discrepancies:

1. In the event of discrepnncy, immediately notify the City Engineer.
2. Do not proceed with installation in **areas** of discrepancy until all such discrepancies have been fully resolved.

3.02 COORDINATION:

Carefully coordinate with all other trades to ensure proper and adequate interface of the **work** of other trades with the **work** of this Section. The masonry contractor shall **be** responsible for installing all below slab rebar for his block **work**.

3.03 MIXING MORTAR:

A. General:

1. Use a mechanical mixer of **one** sack minimum capacity. Use measuring **box** for all volume measurements.

2. Mix mortar at least three minutes after all materials have been added.
3. Mix only as much mortar as can be used in one hour after water has been first mixed into the batch.

B. Retempering:

Do not retemper mortar.

3.04 INSTALLATION:

A. General:

1. Lay up all walls in bond to match existing, plumb, level, and true to the lines and dimensions indicated on the Drawings.
2. Do not use chipped or broken units. If any such units are discovered in the finished wall, the City Engineer may require their immediate removal and replacement with new units at no additional cost to the City of Lodi.

B. Dampening:

1. Store all masonry units on the job so that they are kept off the ground and protected from the rain.
2. Wetting the units shall not be permitted except when hot and dry weather exists causing the units to be warm to the touch, and then the surface only may be wetted with a light fog spray.

C. Laying up:

1. Place all units in mortar with full shoved bed and head joints.
2. Align all vertical cells to maintain a clear, unobstructed system of flues.
3. Hold racking to an absolute minimum.
4. Provide cleanouts at the bottom of each cell for removing mortar droppings. Do not close the cleanouts until they have been inspected and approved by the City Engineer.
5. Lay all split-face concrete block with split side to the sheet side of the enclosure.

D. Reinforcement:

1. Install **all** reinforcement as indicated on the Drawings.
2. Fully embed reinforcement in grout, not in mortar or mortar joints.
3. Furnish **and** install **all** required metal accessories **to** ensure accurate alignment of steel during grout filling operations.

E. Tooling:

Tool all joints to a dense, smooth surface, 3/8" thick.

3.05 GROUTING:

A. General:

Perform **all** grouting in strict accordance with the provisions for highlift grouting as described in Section 2415 C of the Uniform Building Code, **1979 edition**.

B. Timing:

Do not grout until masonry has cured **at** least 24 hours.

C. Consolidation:

Consolidate **all** grout at time of pouring by puddling with a mechanical vibrator, filling **all** cells of the masonry, and then reconsolidating later **by** puddling before the plasticity is **lost**.

3.06 CLEANING UP:

A. General:

Clean mortar from block each day. Block shall be free from excess mortar **at** joints during lay-up and tooling.

B. Inspection and adjustment:

Upon completion of **the** work of this Section, make a thorough inspection of all installed concrete unit masonry and verify that all units have been installed in accordance with the provisions of this Section. Make all necessary adjustments.

C. Cleaning:

- I. Clean all surfaces of concrete unit masonry as required for proper application of the specified finishes.
2. Upon completion of the work of this Section, promptly remove ~~from~~ the job site all mortar droppings, broken units, debris arising from the Work of this Section, and all tools and equipment of this Section, leaving all areas in a neat and orderly condition to the approval of the City Engineer.

END OF SECTION

DIVISION FIVE - METALS

SECTION 05100 - STRUCTURAL STEEL

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A. Work included:

Structural steel required for this Work is indicated on the Drawings and includes, but is not necessarily limited to:

1. Columns:
2. Structural steel accessories:
3. Bases.

B. Related work described elsewhere:

1. Concrete reinforcement: Section 03200
2. Miscellaneous metal Section 05500

1.02 QUALITY ASSURANCE:

A. Qualifications of suppliers and personnel:

1. The steel fabricator shall have not less than five years continuous experience in the fabrication of structural steel.
2. The steel erector shall have not less than five years continuous experience in the erection of structural steel.
3. All welding shall be performed by operators who have been recently qualified as prescribed in "Qualifications Procedure" of the American Welding Society (except for welds which do not carry calculated stress), and welding shall be performed only under local Fire Marshal permit.

B. Codes and standards:

In addition to complying with all pertinent codes and regulations, comply with:

1. "Specifications for Design, Fabrication, and Erection of Structural Steel for Buildings" of the American Institute of Steel Construction.
2. "Code for Welding in Building Construction" of the American Welding Society.
3. **AWSD1.1**
4. "Specifications for Architecturally Exposed Structural Steel" of the American Institute of Steel Construction.
5. AISC "Structural **Steel** for Buildings"

C. Conflicting requirements:

In the event of conflict between pertinent codes and regulations and the requirements of the referenced standards or these Specifications, the provisions of the more stringent shall govern.

1.03 SUBMITTALS:

A. Shop Drawings:

1. Within thirty-five (35) days after **award** of Contract, and before any structural steel is fabricated, submit Shop Drawings to the City Engineer for approval in accordance with Section **01300** of these Specifications.
2. Show **all** shop and erection details including cuts, connections, holes, threaded fasteners, rivets, and welds.
3. Show all welds, both shop and field, by the currently recommended symbols of the American Welding Society.

B. Proofs of compliance:

Submit proofs of compliance to the City of Lodi's selected testing laboratory in accordance with Section **01400** of these Specifications.

C. Proofs of qualification:

Within five (5) days after award of Contract, submit to the City Engineer

evidence satisfactory to him that the steel fabricator and steel erector are qualified for the work in accordance with the requirements of this Section of these Specifications.

1.04 PRODUCT HANDLING:

A. Protection:

Use all means necessary to protect structural steel before, during, and after installation and to protect the installed work and materials of all other trades.

B. Replacements:

In the event of damage, immediately make all repairs and replacements necessary to the approval of the City Engineer at no additional cost to the City of Lodi.

PART 2.00 - PRODUCTS

2.01 STRUCTURAL STEEL:

A. Steel shapes and plates:

All steel shapes and plates shall meet the requirements of ASTM A-36.

B. Rectangular tubing:

All rectangular tubing shall meet the requirements of ASTM A-500-B or have equal yield, ultimate, and weldability properties.

2.02 BOLTS AND NUTS:

All machine bolts and anchor bolts shall meet the requirements of ASTM A-307.

2.03 PRIMER PAINT:

A. General:

All primer paint for structural steel shall be compatible with the finish coatings described in Section 09900 of these Specifications.

B. Unfinished structural steel:

Where no finish coating for the structural steel is described in Section 09900 of these Specifications, and where the structural steel is not exposed to view or to weather, no primer coat is required.

2.04 OTHER MATERIALS:

All other materials, not specifically described but required for a complete and proper installation of structural steel, shall be new, free from rust, first quality of their respective kinds, and subject to the approval of the City Engineer.

PART 3.00 - EXECUTION

3.01 SURFACE CONDITIONS:

A. Inspection:

1. Prior to installation of the work of this Section, carefully inspect the installed work of all other trades and verify that **all** such work is complete to the point where this installation may properly commence.
2. Verify that structural steel may **be fabricated** and erected in strict accordance with the original design, the approved Shop Drawings, and the referenced standards.

B. Discrepancies:

1. In the event of discrepancy, immediately notify the City Engineer.
2. Do not proceed with fabrication or installation in areas of discrepancy until **all** such discrepancies **have** been fully resolved.

3.02 FABRICATION:

A. General:

A City Inspector will inspect all fabrication of structural steel in strict accordance with the approved Shop Drawings and the referenced standards. Certification that structural steel conforms to Specification will be required.

B. Shop cleaning and priming:

1. Shop paint all structural steel one coat where priming is required.
2. Thoroughly clean all **steel** to be encased in concrete or **masonry** work.

3.03 WELDING:

A. General:

1. For details of joints, comply with requirements for AWS joints accepted with qualification tests.
2. Use ASTM **A-2-33**. E-70 Series electrodes.
3. Follow applicable sections of AWS specifications.

B. Types of welds:

Unless otherwise noted:

1. Make all fillet welds 3/16 inch minimum.
2. **Make all butt welds full penetration welds.** using back-up or chip and back-weld.
3. Welds not required to be full penetration welds are specifically noted on **the** Drawings.

3.04 ERECTION:

A. General:

Erect all structural steel in strict accordance with the Drawings, the approved Shop Drawing, and all pertinent regulations and standards.

B. Tolerance:

Align all structural steel straight, plumb, and level within a tolerance of one in 500.

C. Touch-up:

After erection is complete, touch-up all shop priming coats damaged during transportation and erection, and prime all field welds on members which have been primed, using the priming paint specified for shop priming.

END OF SECTION

SECTION 05500 - MISCELLANEOUS METAL

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A Work included:

All miscellaneous iron and steel items not specifically described in other sections of these specifications but required for a complete and operable facility.

1.02 QUALITY ASSURANCE:

A Qualifications of welders:

Use only certified welders and the shielded arc process for all welding performed in connection with the work of this Section.

B. Codes and standards:

In addition to complying with all pertinent codes and regulations, comply with:

1. "Specification for Design, Fabrication, and Erection of Structural Steel for Buildings" of the American Institute of Steel Construction.
2. "Code for Welding in Building Construction" of the American Welding Society.

C. Conflicting requirements:

In the event of conflict between pertinent codes and regulations and the requirements of the referenced standards or these Specifications, the provisions of the more stringent shall govern.

1.03 SUBMITTALS:

A. Shop Drawings:

1. Within thirty-five (35) days after award of Contract, and before any miscellaneous metal is fabricated, submit **Shop Drawings** to City Engineer for approval in accordance with the General Provisions of these Specifications

2. Show all locations, markings, quantities, materials, sizes, and shapes. **and** indicate all methods of connecting, anchoring, fastening, bracing, and attaching to the work of other trades.

B. Proof of compliance:

Upon completion of this portion of the Work, and **as a** condition of its acceptance, deliver to the City Engineer a letter signed by an official of the miscellaneous metal fabricating and installing firm or firms certifying that all miscellaneous metal was furnished and installed in complete accordance with this Section of these Specifications.

1.04 PRODUCT HANDLING:

A. Protection:

Use all means **necessary** to protect miscellaneous metal before, during and after installation and to protect the installed work and materials of all other trades.

B. Replacements:

In the event of damage, immediately make all repairs and replacements necessary **to the approval** of the City Engineer and at no additional cost to the City of Lodi.

PART 2.00 - PRODUCTS

2.01 STEEL TUBING:

All steel tubing shall be new, free from rust, and conforming with the requirements of ASTM A-500-B.

2.02 STEEL PLATE:

All steel plate shall be new, free from rust, and conforming with the requirements of **ASTM A-36**.

2.03 BOLTS AND NUTS:

All bolts and nuts shall be new, free from rust, and conforming with the requirements of **A-307**.

2.04 PRIMER PAINT:

All primer paint shall be compatible with the finish coats specified in Section 09900 of these Specifications except that, where no finish coats are required, all primer paint shall be "Tnemec 99R", a primer meeting the requirements of Federal Specification TT-P-615(d), type I, or an equal approved in advance by the City Engineer.

2.05 OTHER MATERIALS:

All other materials, not specifically described but required for a complete and proper installation of miscellaneous metal, shall be new, free from rust, best quality of their respective kinds, and subject to the approval of the City Engineer.

PART 3.00 - EXECUTION

3.01 SURFACE CONDITIONS:

A. Inspection:

1. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where fabrication and installation of the work of this Section may properly commence.
2. Make all required measurements in the field to ensure proper and adequate fit of miscellaneous metal items.
3. Verify that miscellaneous metal may be fabricated and installed in strict accordance with the original design and the approved Shop Drawing.

B. Discrepancies:

1. In the event of discrepancy, immediately notify the City Engineer.
2. Do not proceed with fabrication or installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.02 FABRICATION:

A. Compliance:

Fabricate all miscellaneous metal in strict accordance with the approved Shop Drawings and the referenced standards.

B. Prefabrication:

Insofar **as** possible, shop prefabricate all items complete and ready for installation.

C. Welding:

1. Unless otherwise indicated on the Drawings, weld **all** shop connections.
2. Make **all** joints and intersections of metal tight fitting and securely fastened.
3. Make all **work square**, plumb, straight and true.
4. All welds to be ground smooth.

D. Holes:

1. Drill or punch all holes required for the attachment of **work** of other trades and for bolted connections.
2. Burned holes are not acceptable.

3.03 SHOP PAINTING:

A. Preparation:

1. Thoroughly clean all **metal** as described in Section **09900** of these Specifications.
2. Provide all required protection for metal **to be encased in concrete** to prevent accumulation of deleterious foreign material.

B. Painting:

Shop prime all steel except:

1. Steel to be encased in concrete or masonry;
2. Surfaces to be welded;
3. Steelwork which will be concealed by interior finish.

3.04 ERECTION:

A. Coordination:

Coordinate installation schedule with the schedules of other trades to ensure orderly and timely progress of the total work.

B. Compliance:

Erect and install all miscellaneous metal in strict accordance with the Drawings, the **approved** Shop Drawings, and **the** referenced standards. aligning straight, plumb, **and** level within a tolerance of one in **200**.

C. Touching up:

After the erection **and** installation **are** complete, touch-up all shop priming coats damaged during transportation **and** erection, using the priming paint specified for **shop** priming.

END OF SECTION

DIVISION SIX - CARPENTRY

SECTION 06010 - LUMBER

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A. Work included:

All wood. nails, bolts, screws, framing anchors and other rough hardware, and all other items needed for carpentry in this **Work** but not specifically described in other Sections of these Specifications.

B. Related work described elsewhere:

1. Form lumber: Section 03100

1.02 QUALITY ASSURANCE:

A. Standards:

In addition to complying with all pertinent **codes** and **regulations**, all materials of this Section shall comply with the pertinent provisions of:

1. Douglas Fir: "Standard Grading and Dressing **Rules Hemlock**, and for West Coast Lumber". Number 16, Cedar: as published by the West Coast Lumber Inspection Bureau.
2. Plywood: "Softwood **Plywood** - Construction and Industrial. Product Standard PS 1-83 of **U.S.** Department of Commerce. Bureau of Standards.
3. Other similar and pertinent reference standards for the products needed.

B. Conflicting requirements:

In the event of conflict between pertinent **codes** and regulations and the requirements of the referenced standards or these Specifications, the more stringent provisions shall govern.

1.03 PRODUCT HANDLING:

A. Protection:

1. Use all means necessary to protect the materials of this Section before, during, and after delivery to the job **site**, and to protect the

installed work and materials of all other trades.

2. Deliver the materials to the job site and store, in a safe area, out of the way of traffic, and shored up off the ground surface.
3. Identify all framing lumber as to grades and store all grades separately from other grades.

B. Replacements:

In the event of damage, immediately make all repairs and replacements necessary to the approval of the City Engineer and at no additional cost to the City of Lodi.

PART 2.00 - PRODUCTS

2.01 GRADE STAMPS:

A. Framing lumber:

Identify all framing lumber by the grade stamp of the West Coast Lumber Inspection Bureau or such other grade stamp as is approved in advance by the City Engineer.

B. Plywood:

Identify all plywood as to species, grade, and glue type by the stamp of the American Plywood Association.

C. Other:

Identify all other materials of this Section by the appropriate stamp of the agency listed in the referenced standards, or by such other means as are approved in advance by the City Engineer.

2.02 MATERIALS:

All materials of this Section, unless specifically otherwise approved in advance by the City Engineer, shall meet or exceed the following:

Item:

Description:

Framing lumber

- A. Blocking: #2 Grade Coast Region Douglas Fir, pressure treated.

- B. Plywood sheathing: Marine Grade.
- C. Steel hardware: ASTM A-7 or A-36 use all galvanized
- D. Machine bolts: ASTM A-307
- E. Lag bolts: Federal Specification FF-B-561
- F. Nails: Common (except as noted) Federal Specification FF-N-1-1 (use hot-dipped galvanized at all exterior locations).

2.03 OTHER MATERIALS

All other materials, not specifically described but required for a complete and proper installation as indicated on the Drawings, shall be new, suitable for the intended use, and subject to the approval of the City Engineer. Framing lumber shall in no case be less than No. 2.

PART 3.00 - EXECUTION

3.01 DELIVERIES:

A. Stockpiling:

Stockpile all materials sufficiently in advance of need to ensure their availability in a timely manner to this Work.

B. Delivery schedules:

Make as many trips to the job site as are necessary to deliver all materials of this Section in a timely manner to ensure orderly progress of the total Work.

3.02 COMPLIANCE:

Do not permit materials not complying with the provisions of this Section of these Specifications to be brought onto or to be stored at the job site. Immediately remove from the job site all non-complying materials and replace them with materials meeting the requirements of this Section.

END OF SECTION

DIVISION SEVEN - THERMAL &

MOISTURE PROTECTION

No Work Under This Division

DIVISION EIGHT - DOORS & WINDOWS

SECTION 08100 - METAL DOORS AND FRAMES

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A. Work included:

The metal doors and frames required for this Work are indicated **on** the Drawings and include a non-labelled metal door and frnmc.

B. Related work described elsewhere:

- | | | |
|----|-----------------------------|---------------|
| 1. | Concrete masonry units: | Section 04200 |
| 2. | Furnishing finish hardware: | Section 08700 |
| 3. | Finish painting: | Section 09900 |

1.02 QUALITY ASSURANCE:

A. Qualifications of installers:

For actual installation of metal **doors and frames**, and installation of finish hardware on **metal doors and frames**, use only personnel **who** are thoroughly trained **and** experienced in the skills required and who are completely familiar with the manufacturers' current recommended methods of installation as well as the requirements of this Work.

B. Codes and standards:

All doors and frames shall be tested and approved **to meet** the requirements of State of California Title 24. In addition **to** complying with all pertinent codes and regulations:

1. Manufacture **all** labelled **doors** in strict **accordance** with the specifications and procedures of Underwriters' Laboratories, Inc.
2. In guarantee and Shop Drawings, comply with nomenclature established in American National Standards Institute publication A123.1-1967 "Nomenclature for Steel Doors and Steel Door Frames".

1.03 SUBMITTALS:

Within thirty-five (35) days after award of Contract, and before any metal **doors** and frames are fabricated, submit Shop Drawings of all metal doors and frames to the

SECTION 08100 - **METAL DOORS AND FRAMES**

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A Work included:

The metal doors and frames required for this Work are indicated on the Drawings and include a non-labelled metal door and frame.

B. Related work described elsewhere:

- | | | |
|----|-----------------------------|---------------------------|
| 1. | Concrete masonry units: | Section 04 200 |
| 2. | Furnishing finish hardware: | Section 08700 |
| 3. | Finish painting: | Section 09 900 |

1.02 **QUALITY ASSURANCE:**

A Qualifications of installers:

For actual installation of metal doors and frames, and installation of finish hardware on metal doors and frames, use only personnel who are thoroughly trained and experienced in the skills required and who are completely familiar with the manufacturers' current recommended methods of installation as well as the requirements of this Work.

B. Codes and standards:

All doors and frames shall be tested and approved to meet the requirements of State of California Title 24. In addition to complying with all pertinent codes and regulations:

1. Manufacture all labelled doors in strict accordance with the specifications and procedures of Underwriters' Laboratories, Inc.
2. In guarantee and Shop Drawings, comply with nomenclature established in American National Standards Institute publication A123.1-1967 "Nomenclature for Steel Doors and Steel Door Frames".

1.03 SUBMITTALS:

Within thirty-five (35) days after award of Contract, and before any metal doors and frames are fabricated, submit Shop Drawings of all metal doors and frames to the

City Engineer for review in accordance with the provisions of the General Provisions of these Specifications.

1.04 PRODUCT HANDLING:

A. Protection:

1. Deliver, store, and handle **all** metal doors and frames in a manner to prevent damage and deterioration.
2. Provide packaging such **as** cardboard **or** other containers, **separators**, banding, spreaders, and paper wrappings **as** required to completely protect all metal doors and frames during transportation and storage.
3. Store doors upright, in a protected **dry** area, **at** least one inch off the ground and with **at** least 1/4 inch air space between individual pieces; protect all prefinished and hardware surfaces as required.
4. Use all means necessary to protect the installed work and materials of all other trades.

B. Replacements:

in the event of damage, immediately make all repairs and replacements necessary to the approval of the City Engineer and **at** no additional cost to the City of Lodi.

PART 2.00 - PRODUCTS

2.01 METAL DOORS:

A. General:

1. **All metal doors** and frames shall be the product of one manufacturer.
2. Design is based on the referenced products of the Steelcraft Manufacturing Company; equal products manufactured by **Armstrong** Division of American Welding and Manufacturing Company or **The** Ceco Corporation will **be** acceptable **as** substitutes providing **the** Shop Drawings required under Article 1.03 of this Section of these Specifications conclusively prove the equality of the substitute.

B. Type and design:

1. All metal doors shall be full-flush design in the dimensions and types shown on the Drawings, 16 gage, hot-dipped galvanized, with 20 gage

steel stiffeners at 6" O.C., Grade III extra heavy duty. and shall be properly reinforced for the finish hardware described in Section 08700 of these Specifications.

C. Finishes:

Pre-clean, metal etch preparation for galvanized door and shop prime each door for finish painting which will be performed at the job site under Section 09900 of these Specifications.

D. Finish Hardware:

Secure templates from the finish hardware supplier and accurately install. or make provisions for, all finish hardware at the factory.

2.02 METAL FRAMES:

A. General:

All metal frames shall be accurately fabricated to match the doors to be installed in them.

B. Type and design:

All metal frames shall be the types and sizes shown on the Drawings, 16 gage with masonry anchors. and shall be properly reinforced for the finish hardware described in Section 08700 of these Specifications. All frame corners shall be welded and ground smooth prior to delivery to the project.

C. Finishes:

Pre-clean and shop prime each frame for finish painting which will be performed at the job site under Section 09900 of these Specifications.

PART 3.00 - EXECUTION

3.01 SURFACE CONDITIONS:

A. Inspection:

1. Prior to installation of metal doors and frames, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.
2. Verify that metal doors and frames may be installed in strict accordance with all pertinent codes and regulations. the original

design, approved Shop Drawings, **and** manufacturer's recommendations.

B. Discrepancies:

1. In the event of discrepancy, immediately notify the City Engineer.
2. **Do** not proceed **with** installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.02 INSTALLATION:

A. Metal **doors** and frames:

Install all metal doors and frames in strict accordance with all pertinent codes and regulations, the approved Shop Drawings, and the manufacturer's recommendations, anchoring all components firmly in position for long **life** under hard **use**. Grout all frames solid that are attached **to** masonry **or** concrete

B. Finish hardware:

Install all finish hardware in strict accordance with the manufacturer's recommendations, eliminating all hinge-bound conditions and making all items smoothly operating and firmly anchored into position.

- C. All attachment bolts that are exposed shall **be** countersunk and puttied with "Bondo", ground smooth and finished **so** that **no evidence** of the attachment remains.

END OF SECTION

SECTION 08700 - FINISH HARDWARE

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A. Work included:

1. "Hardware groups" have been assigned to the various **doors** required for this work: the hardware groups **are** described in detail in this Section **of** these Specifications.
2. Unless otherwise approved **by** the City Engineer, furnish all finish hardware described in the Hardware Schedule and **all** other finish **hardware** not described but required for a complete and operable facility.

B. Related **work** described elsewhere:

1. Installation on metal doors: Section **08100**

1.02 QUALITY ASSURANCE:

A. Qualifications of suppliers:

The finish **hardware** supplier shall have in his employ an AHC member **of** the American Society **of** Hardware Consultants who shall be made available for consultation **at** no additional cost **to** the City **of** Lodi during course **of** construction.

1.03 SUBMITTALS:

A. Materials list:

1. Within thirty-live (**35**) days **after** award **of** Contract, and before any finish hardware is ordered or **purchased** for this Work, submit to the City Engineer for his approval **a** complete list of all finish hardware proposed to be furnished for his Work, giving manufacturer's name and catalog number for each item.
2. This shall in no way **be** construed as permitting substitutions of items for the items specified.
3. **Make** all submittals, and resubmittals if necessary, in accordance with the provisions of the General Provisions **of these** Specifications.

B. Manufacturer's recommendations:

Prior to installation, deliver to **all** installing personnel complete recommendations from the manufacturers regarding installation methods.

1.04 PRODUCT HANDLING:

A. Packaging:

1. Furnish **all** finish hardware with **each** unit clearly marked or numbered in accordance with the Hardware Schedule.
2. Pack each item complete with all necessary pieces and fasteners.
3. Properly wrap and cushion each item to prevent scratches during delivery and storage.

B. Delivery:

Deliver **all** finish hardware to the installers in a timely manner to ensure orderly progress of the total Work.

PART 2.00 - PRODUCTS

2.01 FASTENERS:

A. General:

1. Furnish all finish hardware with **all** necessary screws, bolts, and other fasteners of suitable size and type to anchor the hardware in position for long life under hard use.
2. Furnish fastenings where necessary with expansion shields, toggle **bolts**, **sex** bolts, and other anchors approved by the City Engineer, according to the material to which the hardware is to be applied and the recommendations of the hardware manufacturer.

B. Design:

All fastenings shall harmonize with the hardware as to material and finish.

2.02 HINGES:

Unless otherwise specified, provide 5 knuckle, **button** tip, full mortise template type butts with non-removable loose pins and ball or oilite bearings as follows:

A. Exterior door hinges:

Provide out-swinging door hinges with non-removable pins.

B. Where required to clear trim or permit doors to swing 180 degrees, furnish hinges of sufficient throw.

2.03 LOCKS AND LATCHES:

A. All locksets and latchsets shall be heavy duty cylindrical locks, unless otherwise specified.

B. All locksets and cylinders shall have a minimum of ~~six~~ pins with removable cores.

C. All cylinders shall be construction keyed. At the end of the project, the Contractor shall provide the services of a professional locksmith who shall key all locks as directed by the City of Lodi.

D. Padlocks shall be Standard City of Lodi padlocks laminated with regular shackle and solid brass key cylinder with pin tumbler lock mechanism.

2.04 DOOR BOLTS:

Heavy duty 1 inch throw door bolt.

2.05 FINISHES:

The finish of all hardware shall match the finish of the locksets which shall be US 10B unless noted otherwise. Special care shall be given to coordinate all the various manufactured items furnished on this Work, to ensure an acceptable uniform finish.

2.06 PROPRIETARY PRODUCTS:

References to specific proprietary products are used to establish minimum standards of utility and quality. Unless otherwise approved by the Architect, provide **only** the specific products. Design is based on the materials specified; other materials may be considered by the City Engineer in accordance the General Provisions.

2.07 ACCEPTABLE MANUFACTURERS AND PRODUCTS:

Locksets:

Falcon X-Series

Door Bolts:

Falcon D400

Butts:

Stanley 4½" x 4½" FBB 179 NRP. US26D

1½ pair per door.

Stanley 4½" x 4½" 2060 Spring Hinge, NRP. 1 pair per handicap door.

Padlock:

City of Lodi Standard

Stops:

Builders Brass Works, W146X with masonry anchors

2.09 OTHER MATERIALS:

All other materials, not specifically described but required for a complete and proper finish hardware installation, shall be as selected by the Contractor subject to the approval of the City Engineer.

PART 3.00 - EXECUTION

3.01 DELIVERIES

Stockpile all items sufficiently in advance to ensure their availability and make all necessary deliveries in a timely manner to ensure orderly progress of the total Work.

3.02 INSPECTION OF INSTALLATION:

Upon completion of the installation, and as a condition of its acceptance, deliver to the City Engineer a report signed by the AHC stating that his inspection was made, that all adjustments recommended by him have been completed, and that all finish hardware furnished under this Section has been installed and is in optimum working condition.

3.03 HARDWARE SCHEDULE

GROUP 1:

Man Door

Butts	1-1/2 Pair
Lockset	Storeroom X581
Deadbolt	D421 Outside Key Only
	Blank Plate Inside

Door Stop

GROUP 2:

Tube Steel: Truck Gate

Padlock

END OF SECTION

■

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DIVISION NINE - FINISHES

SECTION 09900 - PAINTING

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A. Work included:

The type of material to be used and the number of coats to be applied are listed in the "Painting Schedule" in Part 3.00 of this Section of these Specifications.

B. Related work described elsewhere:

Pretinishing:

Shop priming and factory pretinishing are required on some, but not all of the items described in other Sections of these Specifications.

C. Definitions:

The term "paint", as used herein, included enamels, epoxies, paints, sealers, fillers, emulsions, and other coatings, whether used as prime, intermediate, or finish coats.

1.02 QUALITY ASSURANCE:

A. Qualifications of painters:

Use **only** qualified journeyman painters for the mixing and application of paint on exposed surfaces: in the acceptance or rejection of installed painting, no allowance **will be** made for lack of skill on the part of painters.

B. Codes and standards:

In addition to complying with all pertinent codes and regulations, comply with "Standard (Type I)" as defined by the Painting and Decorating Contractors of America in their "Modern Guide to Paint Specifications", current edition.

1.03 SUBMITTALS:

A. Materials list:

1. Within thirty-five (35) days after award of Contract, and before any paint materials are delivered to the job site, submit to the City Engineer in accordance with the provisions of the General Provisions of these

Specifications- a complete list of all materials proposed **to be** furnished and installed under this portion of the Work.

2. This shall in no way be construed **as** permitting substitution of materials for those specified or approved for this Work by the City Engineer.

B. Samples:

1. Accompanying the materials list, submit to the City Engineer two copies of the full range of colors available in each of the proposed products.
2. Upon direction of the City Engineer, prepare and deliver to the City Engineer **two** identical sets of Samples of each of the selected colors and glosses painted onto 8-1/2 inch by 11 inch by 1/4 inch thick material; whenever possible, the material for samples shall **be** the **same** material as **that on** which the coating will be applied in the Work.
3. Provide a 24" x 24" minimum sample of the stained copper finish. Additional samples **may be** required by the City Engineer **to** achieve the desired finish application.

C. Manufacturer's recommendations:

In **each** case where material proposed is not the material specified or specifically described **as** an acceptable alternate in this Section of these Specifications, submit for the City Engineer's review the current recommended method of application published by the manufacturer of the proposed material.

1.04 PRODUCT HANDLING:

A. Delivery:

Deliver **all** paint materials **to** the job site in their original unopened containers with all labels intact and legible at time of use.

B. Protection:

1. Store only the approved materials **at** the job site, and store only in a suitable and designated area restricted to the **storage** of paint materials and related equipment.
2. Use all means necessary to ensure the safe storage and use of paint materials and the prompt **and** safe disposal of **waste**.
3. Use all means necessary to protect paint materials before, during and after application and to protect the installed work and materials of all other trades.

C. Replacements:

In the **event** of damage, immediately make all repairs and replacements necessary to the approval of the City Engineer and at no additional cost to the City of Lodi.

1.05 EXTRA STOCK:

Upon completion of **this** portion **of** the Work, deliver to the City of Lodi an extra stock of one gallon of each color and gloss used in each coating material used, with all such extra stock tightly sealed in clearly labelled containers.

PART 2.00 - PRODUCTS

2.01 PAINT MATERIALS:

A. Manufacturer:

1. All paint materials selected for coating systems for each type of surface shall be the product of a single manufacturer.
2. Paint materials listed herein, unless otherwise designated in the "Painting Schedule", are the product of Pratt and Lambert and require no further approval as to manufacturer or catalog number.
3. Equivalent products of Ameritone, Dunn-Edwards, and Morwear, may be used subject to approval by the City Engineer the materials list required to be submitted under Article 1.03-A above.
4. Equivalent products of other major paint manufacturers may be used subject to approval by the City Engineer of the materials list and manufacturers' recommendations required to be submitted under Article 1.03 above.

B. Compatibility:

1. All paint materials and equipment shall be compatible in use; finish **coats** shall be compatible **with** prime coats; prime coats shall be compatible with the surface to be coated; all tools and equipment shall be compatible with **the** coating to be **applied**.
2. Thinners, when used, shall be only those thinners recommended for that purpose by the manufacturer of the material to be thinned.

C. Colors and glosses:

All colors and glosses shall be as selected by the City Engineer and will be limited to not more than (2) two paint colors.

PART 3.00 - EXECUTION

3.01 SURFACE CONDITIOSS:

A. Inspection:

1. Prior to all work of this Section, carefully inspect the installed work of all other trades and verify that all such **work** is complete to the point where this installation may properly commence.
2. Verify that paint finishes may be applied in strict accordance with all pertinent codes and regulations and the requirements of these Specifications.

B. Discrepancies:

1. In the event of discrepancy, immediately notify the City Engineer
2. Do not proceed with installation in areas of discrepancy until all such discrepancies **have been** fully resolved.

3.02 PREPARATION OF SURFACES. GENERAL:

A. Protection:

Prior to all surface preparation and painting operations, completely mask, remove or otherwise adequately protect all **hardware**, accessories, machined surfaces, plates, lighting fixtures, and similar items in contact with painted surfaces but not **scheduled** to receive paint.

B. Priming:

Spot prime all exposed nails and other metals which are to be painted with emulsion paints, using a primer recommended by the manufacturer of the coating system.

C. Cleaning:

1. Before applying paint or other **surface** treatment, thoroughly clean all surfaces involved.

2. Schedule all cleaning and painting so that dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

3.03 PREPARATION OF METAL SURFACES:

A. Other metals:

1. Thoroughly clean all surfaces until they are completely free from dirt, oil, grease and old paint.
2. Allow to dry thoroughly before application of paint.

3.04 PAINT APPLICATION:

A. General:

1. Paint all surfaces designated to be painted on the Drawings.

B. Drying:

1. Allow sufficient drying time between coats.
2. Modify the period as recommended by the material manufacturer to suit adverse weather conditions:
3. Oil-base and oleo-resinous solvent-type paints shall be considered dry for recoating when the paint feels firm, does not deform or feels sticky under moderate pressure of the thumb, and the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

C. Copper Finish:

1. Clean copper free from dirt, soil, oils or wax. Surface shall be completely dry.
2. Dissolve sufficient amount of ammonium chloride crystals in water to form a saturated solution.
3. Mix solution 24 hours before application.
4. Apply solution with either brush or spray application.
5. Allow lapse time of 48 hours between applications.
6. 24 Hours after final application, spray a cold water mist over the copper surface.

7. Prior to application, provide 2'x2' test samples of finish on copper to the approval of City Engineer.

C. Environmental conditions:

1. Comply **with the manufacturer's** recommendations as to environmental conditions under which the coating systems may be applied.
2. Do not apply paint in areas where dust is being generated.

D. Defects:

Sand and **dust** between coats to remove all defects visible **to** the unaided eye from a distance of five feet.

3.07 INSPECTION:

A. General:

Do not apply additional coats until completed coat has been inspected and approved **by the City Engineer**.

B. Number of coats:

Only inspected and approved coats of paint will be considered in determining the number of coats applied.

3.08 RE-INSTALLATION OF REMOVED ITEMS:

Following completion of painting in cash space, promptly reinstall all items removed for painting, using only workmen skilled in the particular trade.

3.09 CLEANING UP:

A. General:

1. During progress of the Work, do not allow the accumulation of empty containers or other excess items except in areas specifically set aside for that purpose.
2. Prevent accidental spilling of paint materials and, in event of such spill, immediately remove all spilled material and the waste or other equipment used to clean up the spill. **and** wash the surfaces to their original undamaged condition. **all at no additional cost to the City of Lodi.**

B. Prior to final inspection:

Upon completion of this portion of the Work visually inspect all surfaces and remove all paint and traces of paint from surfaces not scheduled to be painted.

3.10 PAINTING SCHEDULE

Apply the following finishes to the areas designated:

Type 1: Exterior Door and Gate

First Coat: Pratt and Lambert Effecto Rust Inhibiting Primer
Second Coat: Pratt and Lambert Effecto Enamel
Third Coat: Pratt and Lambert Effecto Enamel

Type 2: Copper Finish

First Coat: Ammonium Chloride Saturated Solution
Second Coat: Ammonium Chloride Saturated Solution

Type 3: Water Scaler Over Concrete Block

First Coat: "Rainguard" MD or equal per manufacturer's coverage
Second Coat: "Rainguard" HD or equal per manufacturer's coverage

END OF SECTION

DIVISION TEN - FIFTEEN

No **Work Under** These Divisions

DIVISION SIXTEEN - ELECTRICAL

SECTION 16400 - ELECTRICAL

PART 1.00 - GENERAL

1.01 DESCRIPTION:

A. Work included:

Work covered under this section shall include, furnishing **all** labor, material, tools, equipment and incidentals and doing all work involved which is required for the complete installation of the electrical work. Work or equipment not specified or shown on the plans which is necessary for the proper operation of the work in this section shall be provided and installed at no additional cost to the City of Lodi.

B. The work shall include, but is not limited to the following:

1. Provide and install exterior wall-mounted **light**, switch and trenching and conduit to panel.
2. Testing of **all** electrically operated equipment.

C. Work not included under **this** Section:

1. Finish painting of exposed metal surfaces included under Painting section.

D. Related work described elsewhere:

1. The General Provisions **are** a part of this section and the Contractor for this work, and **apply** to this section as fully as if repeated herein.
2. Perform all trenching and backfilling required in connection **with** the work of this Section in strict accordance with the provisions of Section **02210** of these Specifications.
3. Other divisions:

Where **carpentry**, masonry, concrete work, etc. **is** required by **this** subcontractor, the work shall be done as specified as to the appropriate division requirements. **This** includes work required for construction of proper standards, bases and **supports** for electrical materials and equipment.

1.02 REGULATIONS AND CODES:

A. All work and materials shall be in full accordance with the latest rules and regulations of the California Administrative Code, Title 24 State Building Standards, National Electrical Code, Local City and County Code, applicable regulations of local utility companies W.U.E.S.S.C. Standards, and General Order 95 of the Public Utilities Commission, and any other applicable laws or regulations. Nothing in these drawings or specifications is to be construed to permit work not conforming to the above codes. Drawings and/or specifications shall take precedence when work and material called for exceed code requirements.

B. Safety equipment:

The Contractor shall provide and be responsible for all required safety equipment and warning signs and shall take all precautions to avoid injury or damage to persons or property and shall indemnify the City of Lodi against any claim or liability arising from or based on the lack of proper safeguards or negligence by himself or his employees.

1.03 PERMITS, FEES AND INSPECTIONS:

Obtain all permits and pay all required fees. Inspection required by any local ordinance during construction shall be arranged by the Contractor. On completion of work, furnish the City Engineer with certificates of inspections.

1.04 DRAWINGS AND SPECIFICATIONS:

Information presented in the specifications and on the drawings are as exact as could be secured but their extreme accuracy is not guaranteed. The drawings and specifications are for the assistance and guidance of the Contractor, and exact locations, distances, levels, etc. will be governed by the site and building, and the Contractor shall accept same with this understanding. The drawings indicate schematically the layouts of equipment, accessories and wiring systems and shall be followed as closely as possible. Other drawings and actual field conditions shall be examined by the Contractor, noting all conditions that may affect this work. Report conflicting conditions to the City Engineer for adjustment before proceeding with work. Minor changes may be made, providing change is ordered before equipment and wiring systems or work directly connected to same is installed and no extra materials are required.

1.05 EXAMINATION OF SITE:

The Contractor shall be held to have visited the site, checking existing conditions, and satisfied himself as to the conditions under which the work is to be performed before submitting his bid. No allowances shall subsequently be made in his behalf

for any extra expense to which he may put due to failure or neglect to discover conditions affecting his work.

1.06 WORKMANSHIP:

Good workmanship shall be in evidence in the installation of all electrical materials and equipment. Equipment shall be level, plumb and true with the structure and other equipment. All materials shall be firmly secured in place and adequately supported and permanent. The requirements of the codes are minimum standards. The recommendations of the National Electrical Contractors Association Standard of Installation shall be followed except where otherwise specifically directed.

1.07 GROUNDING AND BONDING:

Provide grounding and bonding for all electrical equipment in accordance with the applicable codes, rules, and regulations. Permanent and effectively ground all raceway systems, supports, cabinets, outlet boxes, and equipment. Where the raceway is used as the grounding conductor, and it is not possible to obtain good continuity of ground, additional bonding shall be provided. A separate code size copper grounding conductor shall be installed in all PVC and flexible metal raceways with the circuit conductors. The grounding conductor shall be green insulated and shall be connected to each device, outlet box, and panel ground bus.

PART 2.00 - MATERIALS AND EQUIPMENT

2.01 STANDARDS:

Unless otherwise noted, all material and equipment shall be new, of the type, capacity and quality specified and free from defects. Material shall bear the label of, or be listed by, the Underwriters' Laboratories unless of a type for which label or listing service is not provided.

2.02 MATERIAL SUBSTITUTIONS:

Specific brand names mentioned shall establish standards of performance and quality and the phrase "or approved equal" shall be implied unless otherwise noted. Substitute materials shall be equal in quality and utility to those specified. Approval of substitute material shall be regarded as general only and shall not relieve the contractor from complying with the requirements of the drawings and specifications; and the Contractor shall be responsible at his own expense, for any changes caused by proposed substitutions which affect other parts of his own work or the work of other contractors. One proposed substitution will be allowed for each item. No consideration will be given to substitutions submitted past thirty-five (35) day limit. Should the original submittal of a proposed substitution be rejected, the specified item shall be furnished.

2.03 SHOP DRAWINGS AND SUBMITTALS:

Within thirty-five (35) calendar days after award of Contract, and before any fabrication and installation of **any** material, submit shop drawings and submittals as specified in the General Provisions of these Specifications. The Contractor shall provide a list containing complete information and catalog cuts on **all** equipment. The list shall be complete for the project and submitted at one time.

2.04 RACEWAY:

Raceways shall be run underground. Exposed runs shall be neatly installed **parallel** or right angles to the structural members.

A. Pull wires:

Provide #12 TW in empty 1" and smaller and 3/16" polypropylene rope in conduits 1-1/4" and larger.

B. Conduit penetrations:

Conduits which penetrate floor **slabs** and concrete or masonry walls shall be grouted and sealed **water-tight** at penetration.

C. Rigid steel conduit:

Shall be used above ground outdoors or where exposed on surface and where it **may** be subject to vandalism. Shall be galvanized or sherardized, heavy wall with threaded fittings. **Use** only threaded type fittings. Apply thread seal to all joints except in permanently dry locations. Where installed below floor **slab** and in contact with fill material, or underground and in contact with earth, shall be wrapped with Scotchwrap #50 or Johns-Manville VID-10 at double 1/2 lap (net four layers), or encased in 3" of concrete. Termination of conduits in cabinets, wiring gutters or **boxes** shall be fitted with locknut T & B 141 Series and insulated bushings T & B 1222 Series or grounding bushings **are** required use insulated grounding bushing T & B 3870 Series. Where conduit connections **are** exposed to weather or excessive moisture, shall be fitted with insulated watertight sealing hub T & B 370 Series. Conduit stubs shall be capped with coupling, nipple and cap.

2.05 CONDUCTORS:

- A. All conductors shall be in raceways. Minimum size shall be A# 12 AWG. All branch circuits and feeders **shall** be color coded as follows:

120/240 or
120/208V

Phase A	Black
Phase B	Red
Phase C	Blue
Neutral	White
Ground	Green

- B. Color of switch legs shall be other than list above for Phase, Neutral and Ground Conductors.
- C. All insulation shall be 600V minimum except for signal cable and low voltage wiring. Fixture taps and branch circuit wiring within approved fixtures wireway shall be type THHN 90c. Conductors for lighting and power panel feeders, and branch circuits from lighting and receptacles panels and power panels shall be Type THW. Conductors #10 AWG and smaller shall be solid copper, 98% conductivity except for signal conductors which shall be stranded, #8 AWG and larger and shall be stranded. Conductors #6 and larger may be aluminum.
- D. Splices and terminations for Conductor #10 and smaller shall be made with T & B "Piggys", nylon self-insulated type.
- E. Cable ties:
- For wire training and clamping in cabinets and enclosures use T & B Ty-rap nylon cable ties.
- F. Wire pulling lubricant:
- Shall be Ideal "Wire Lub" Minerallic "Pull-In" compound, or Y-ER EAS wire pulling lubricant.

2.06 BOXES:

Outlet boxes and junction boxes shall be of size and shape best suited for the particular application and supported directly to structural members, framing or blocking by means of screws, anchors or bolts. When installed exposed to rain or in wet location shall be of the cast screw hub type with gasketed covers. Shall be of one piece drawn galvanized steel with a minimum size of 4" square. Lighting outlets shall be minimum of 4" octagon with 3/8" fixture stud.

2.07 WIRING DEVICES:

- A. Switches shall be Hubbell for exterior application; toggle type, 20 amp, 1 pole or equal flush type.
- B. Device plates for receptacles and switches to be polished stainless steel. For surface boxes use 1/2" raised zinc plated steel covers.

2.08 LIGHTING FIXTURES AND LAMPS:

- A. Shall be Hi-Tek - TWH 150S - 120V - SF - DMB, 150 LU Lamps. Install with lamps, frames, lens, hangers, supports, etc., complete. Check drawing for fixture mounting details showing additional or special installation requirements. Fixtures shall be clean at final inspection.
- B. Fixtures shall be lamped with Westinghouse, General Electric or Sylvania lamps. **M.I.D** and fluorescent lamps shall be of the same manufacturer, where feasible.

PART 3.00 - TESTING, ACCEPTANCE AND GUARANTEE

3.01 TESTING:

- A. Upon completion of this portion of the Contract, test all parts of the electrical system in the presence of the City Engineer.
- B. Demonstrate that all equipment furnished, installed and/or connected under this section of these specifications functions electrically in the required manner.
- C. **Test** all wiring and connections for continuity and grounds before any fixtures or equipment are connected, and where such tests indicate faulty insulation or other defects, they shall be **located**, repaired and tested again at the Contractor's expense. Electrical loads shall be balanced at the panelboards and motors shall be checked for correct rotation.

3.02 ACCEPTANCE:

Deliver to the City Engineer a "Certificate of Final Inspection" from the County or City, and demonstrate to the City Engineer that the entire installation is complete, in proper operating condition and that the Contract has been properly and fully executed. Provide all instruments to make such tests.

3.03 GUARANTEE:

Labor and materials furnished or installed under this section of the specifications shall carry a written one year guarantee by the Contractor to the City of Lodi, covering materials and workmanship in full. Guarantee shall be dated on acceptance by the City of Lodi of the completed work. Labor to replace defective parts or to make necessary adjustment shall be performed without cost to the City of Lodi by the Contractor during said guarantee period.

Unsatisfactory or imperfect materials shall be replaced with those specified herein, or equal, and in such a manner as to meet these specifications in full, and without cost whatsoever to the City of Lodi.

END OF SECTION